

MOBILIZATION OF RESOURCES
Through
AGRICULTURAL TAXATION
In
UTTAR PRADESH
(With special reference to Allahabad District)

Thesis Submitted for
The Degree of Doctor of Philosophy

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P R E F A C E

The question of mobilising agricultural surpluses for economic development of the country through increased taxation of agricultural sector has become of prime importance in the current discussions on economic planning. The issue has its relevance not only in fiscal policy of a federal polity, but it has also wider repercussions to the whole process of growth with our avowed objective of minimum disparities -- social, economic and political. The contention has been put forward that the stagnation in the economy of Uttar Pradesh could be broken if a restructuring of the State Tax Policy takes place effecting larger funds flow from the farm sector to the Exchequer, agriculture being the predominant sector contributing about 60 per cent of the State Income. Uttar Pradesh is one Plan behind other states in the matter of economic progress, mostly due to the fact that the per capita investment in this State during the earlier Five Year Plans has not only been inadequate but by far the lowest in the country.

The resource mobilisation through agricultural taxation should be able to give impetus to programmes of decentralised planning which neither the Centre nor the State Government alone can finance looking to its huge

dimensions. In this overall context of reviving the backward economy of Uttar Pradesh a pattern of progressive land taxes has been suggested which is elastic to price and productivity and obeys the normal canons of equity.

The study is based on empirical findings of the three typical geo-physical regions of the district of Allahabad into costs and returns according to size of holdings in the year 1973-74. The investigation revealed that the increase in incomes in the agricultural sector is not evenly distributed in that sector. The chief beneficiaries have been those larger farmers who marketed their surplus produce. This enabled us to come to a final conclusion that broadly speaking the main thrust of the progressive rates of agricultural taxation in Uttar Pradesh should be on the uppermost decile of the affluent farmers. We leave out nearly 80 per cent of the cultivators owning less than 5 acres of land out of our proposals for increased tax burden, and suggest a mild progression in taxing the rest so as not to be a disincentive to higher private capital formation.

Throughout our discussion of the problem the assumption has been that the public sector has the primary responsibility for providing the social and economic overheads of development, in the form of assured irrigation, fertiliser, soil conservation and other primary basic needs. One has, therefore, to keep in mind that

against the revenue that might be collected from taxation of agriculture has to be set the reverse flow of public expenditure, particularly towards the amelioration of the weaker sections of the rural community.

My gratitude are to Prof. P. C. Jain, my teacher and Head of the Economics Department, University of Allahabad for his encouragement and guidance all along. I am greatly indebted to Prof. Mahesh Chandra, my Supervisor who has always been kind and generous in giving his valuable time and advice.

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I frequently visited the Library of the State Planning Institute, Uttar Pradesh and approached other State Departments, dealing with revenue and land records for collecting up-to-date facts and data. Besides our University Library I have very frequently used material and got assistance from the Allahabad Agricultural Institute, Library at Naini for which I am grateful.

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C O N T E N T S

<u>CHAPTERS</u>	<u>Page</u>
I Uttar Pradesh : The Economy and Its Development Problems. ...	1-27
II Agriculture and Economic Development -- A Glimpse of World Experience	28-59
III Twenty Five Years of Agricultural Planning and Productivity in Uttar Pradesh. ...	60-87
IV Land Reforms and the Structure of Holdings in Uttar Pradesh ...	88-112
V Land Revenue Settlements in Uttar Pradesh. ...	113-135
VI Agricultural Taxation in Uttar Pradesh -- Its Incidence and Elasticity. ...	136-162
VII Reform of Agricultural Taxation -- Resource Mobilization With Equity. ...	163-187
VIII Economic Profiles of Allahabad District. ...	188-221
IX Mobilization of Agricultural Surpluses in the District of Allahabad. ...	222-256

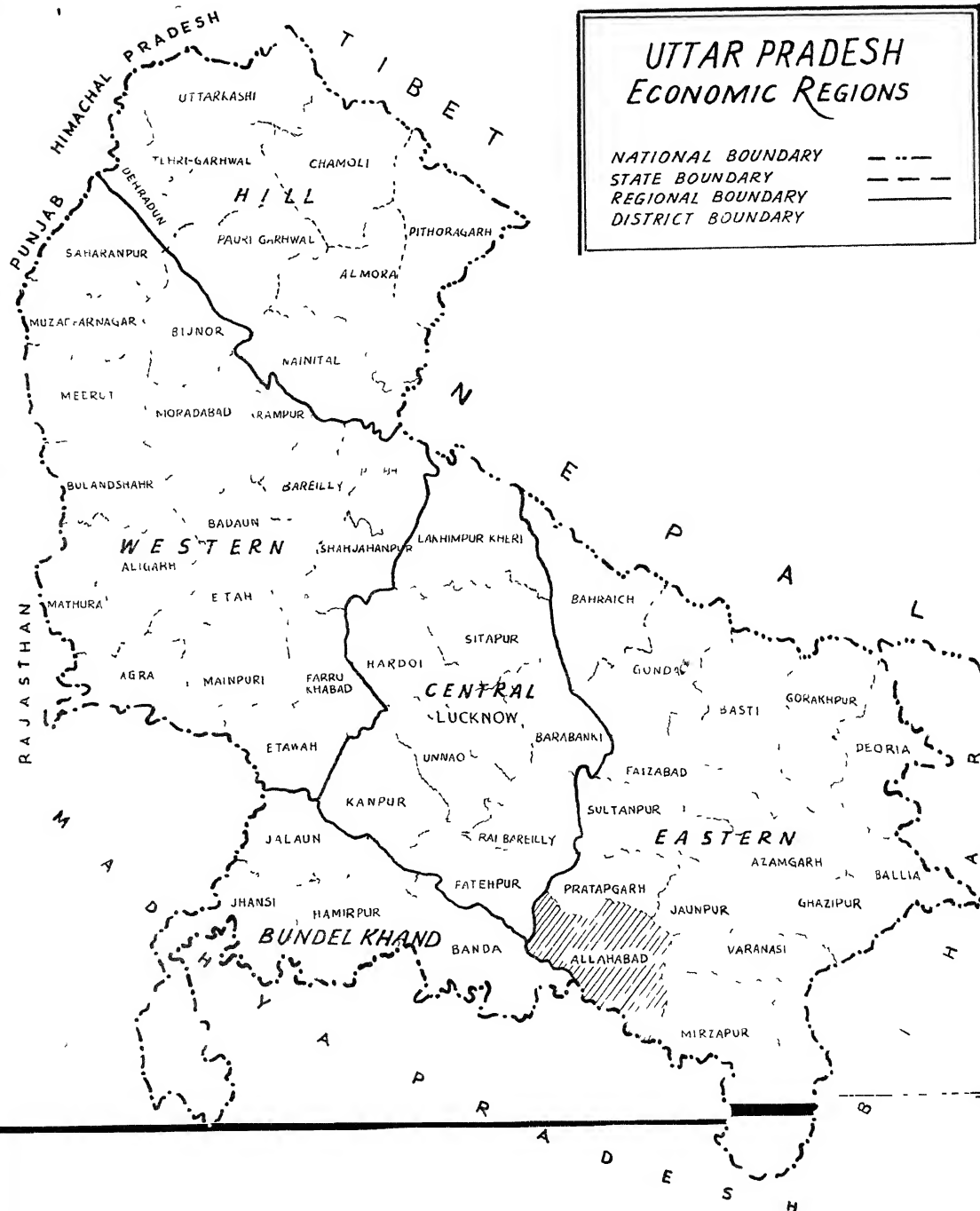
		<u>Page</u>
X	Reconstruction of Agrarian Institutions -- For Higher Savings and Investments.	257-283
XI	Findings and Suggestions.	284-305
	ANNEXURES	306-372
	BIBLIOGRAPHY	373-381

*UTTAR PRADESH
ECONOMIC REGIONS*

NATIONAL BOUNDARY --- --
STATE BOUNDARY --- --
REGIONAL BOUNDARY _____
DISTRICT BOUNDARY

*UTTAR PRADESH
ECONOMIC REGIONS*

NATIONAL BOUNDARY --- --
STATE BOUNDARY --- --
REGIONAL BOUNDARY _____
DISTRICT BOUNDARY



CHAPTER I

UTTAR PRADESH : THE ECONOMY AND ITS DEVELOPMENT PROBLEMS

Uttar Pradesh with a population of 88.3 millions (1971 census) is the most populous state in India.¹ In terms of area, however, it ranks 4th in the country. Thus the population of the State constitutes 16.1 per cent of India's population though it extends over only 9.1 per cent of the total area of the country. "By the sheer weight of its population, economic growth in this region would naturally affect the average level of living of the country as a whole".² While at the beginning of the First Plan the per capita state income was nearly 5 per cent higher than the per capita national income, by 1960-61 it had come down to a level nearly 7 per cent below the all-India level and has remained at a comparatively lower figure ever since. During the first decade of planning while the per capita national income has advanced at an average rate of 1.67 per cent per annum, the state's economy

¹In terms of population it is larger than any country in Europe (excluding the U.S.S.R.) and Africa, and about the size of Brazil, the largest country of L. America.

²N.C.A.E.P. : Techno-Economy Survey of U. P.,
p. 1.

has been almost stagnant, developing at about the same rate as the states population. A recent expert economic enquiry of the State rightly observes:

"The high density, low per capita income and relatively slow rate of growth in the State manifest themselves in several ways like small average agricultural holdings, low degree of urbanization, small share of income from industry, low rate of literacy, extremely inadequate economic and social overheads like transport, communications and electric power, and a large part of the State being backward."³

Geography And Natural Resources

The state is divided into four natural regions -- the hill areas in the north along the Himalayas; the sub-montane tract comprising Phabar and Tarai; the Yamuna-Gangetic Plain with fertile alluvial soil and the hill plateau region lying to the south of the Gangetic Plain. The Himalayan region is mountaineous having extensive and thick forests. It comprises Uttar Kashi, Chamoli, Pithoragarh, Tehri - Garhwal, Garhwal and Almora districts and Chakrata and a part of Dehradun Tehsil of Dehradun district. The region is thinly populated.

³U.P. Taxation Enquiry Committee, Report,
P. 2.4.

Dehradun is the only city with a population of more than one lakh. On account of stony nature of the land, cultivation is possible only in river valley's and terraced hill slopes. The sub-montane tract between the Ganga and Sarda rivers has two distinct portions : immediately below the hills called the Phabar, mostly covered with forests. Below the Phabar is a wider strip of land called the 'Tarai', a damp and marshy tract covered with thick jungle and tall grasses. The main crops of the Phabar and the Tarai are wheat, rice and sugarcane.

Between the Himalayas in the north and the hills and plateau in the south lies a vast homogeneous alluvial plain -- one of the largest in the world. The plain is watered by the Yamuna, the Ganga and its northern tributaries, the Ramganga, the Gomti and the Ghagra. This region is vital for the economy of the State and is densely populated. This tract occupies the largest area of U. P. (about 75%), covering 42 out of the 54 districts of the State. For purposes of regional planning, the Yamuna - Gangetic plain is further divided into three regions, namely, Eastern plain, consisting of 15 districts which are called scarcity areas, the Central Plain and Western Plain. The chief crops are rice, wheat, millets, gram, barley and Sugarcane.

The southern region consists of the Vindhya Hills and the Plateau, and is a part of the central Indian Plateau. It comprises the four districts of Bundelkhand Division, namely Jhansi, Jalaun, Hamirpur and Banda Districts, the Meja and Karchhama tehsils of Allahabad District, the whole of Mirzapur District south of the Ganga, and the Chakia tehsil of Varanasi District. The density of population per square kilometre is 142 for this region i.e., less than half of what it is for the State. The means of communication are poor and the railway system is also inadequately developed. The region is drained by the Betwa and the Ken rivers which join the Yamuna. The crops of the region are Jwar, Gram and Wheat.

Land And Its Utilisation

The most important natural resources of the state are land and soil. The solution for meeting the requirements of the growing population with a fixed land surface, lies in the optimum utilisation of land in all possible ways.⁴ The total cropped area has shown a rising trend both on account of increase in the net area sown and the area sown more than once. As a result of these changes, the intensity of cropping has increased from 122.9 in 1950-51 to 133.8 during 1970-71. It has been estimated that about 19 per cent of the total land available for cultivation, can still be utilised for farming purposes.⁵

⁴See Annexure 1.1, 1.2 in Appendices:

⁵Report of the Fifth Five Year Plan U.P., p. 19.

From 1950-51 to 1970-71 the percentage of double cropped area to the net area sown has increased from 23 per cent to 33 per cent. With better crop planning and irrigation facilities there is a possibility of putting more area under double cropping.

Water Resources

The water resources may be broadly divided into surface water and underground water. Excepting the Hill region and Bundelkhand, Uttar Pradesh is rich in the matter of water resources. The surface water resources of Uttar Pradesh have been estimated at about 200 million acre feet (M.A.F.) per year. About 40 million acre feet are expected to be utilised after the completion of the Fourth Plan schemes.⁶ Most of the rivers of Uttar Pradesh rank among the largest of the country. In particular, the Ganga and the Yamuna rank among the largest rivers of the world. In sharp contrast to most of the other rivers of the country, most of the rivers of Uttar Pradesh are snow-fed and hence the flow of water is perennial and massive even during the lean season. Few other parts of the country enjoy a similar advantage.⁷ Although no intensive studies have been made for assessing the ground water

⁶Planning Department, Uttar Pradesh, Fifth Five Year Plan U.P., p. 20.

⁷Commerce - The State of Uttar Pradesh. A Survey p. 7.

availability, it has been officially assessed that the aquifers in the State are thick and are composed of fine coarse sand and gravel, the clay percentage is small and permeability and storage characteristics are favourable. The estimate of ground water availability in the State is 48.86 million acre ft. The existing minor irrigation works are estimated to be capable of a draft of 19.395 million acre ft. For the exploitation of the balance further works can be planned - say up to 33.997 million acre ft.

Other Resources

The State of Uttar Pradesh stands fifth in respect of forest area among the States of the country the first four being, Madhya Pradesh, Orissa, Maharashtra and Andhra Pradesh. The area under forests in Uttar Pradesh works out to 16.83 per cent of the total geographical area in the state, as compared to 22.98 per cent in India. However, the most serious shortfall in Uttar Pradesh is mineral resources. The State has hardly one percent of the total mineral deposits available in the country. The per capita value of the mineral production during 1967 was found to be Rs. 0.05 in U.P., as against Rs. 4.7 in all India. The important minerals found in the State are - limestone, both cement and flux grades, silica (sands), phosphatic shales, magnesite and building stones.

The mineral deposits available in the State are mostly concentrated in the eight North Himalayan districts and six other districts, namely, Agra, Jhansi, Hamirpur, Panna, Allahabad and Mirzapur. Chief among the existing mineral - based industries in the State are the U. P. Government Cement Factory at Churk and a large number of glass factories. However, the total industry (organised as well as cottage) contributes 8% of the national income of the State, whereas for the economy of the country as a whole the share of industry is roughly 17%.⁸

Occupational Distribution

From the natural endowments of Uttar Pradesh as highlighted above it is evident that the State economy is much more dependent upon agriculture than in other States of India taken as a whole. Out of the total workers of 288.50 lakhs in 1961, 63.9 per cent were engaged in agriculture as cultivators and 11.3 per cent as agricultural labourers. Thus the working population engaged in agriculture in U.P. forms 75.2 per cent as against 69.6 per cent in the country. However, according to 1971 census the distribution of workers in the State and the country can be made from the following table:

⁸N.C.A.F.P. : Techno - Economic Survey of Uttar Pradesh, p. 11.

Table No. 1Percentage Distribution of Economic Classification of Workers

State/India	Cultivators	Agricultural Labourers	Others	Total Agricultural Workers
	1	2	3	4
India	42.9	25.8	31.4	68.7
Uttar Pradesh	56.0	19.4	24.7	75.4

Source : Fifth Five Year Plan U.P., p. 34.

If we total up all the agricultural workers we get a similar population as in 1961 census. The different method of classification of cultivators and agricultural labourers has been largely responsible for the large decline in the population of cultivators.⁹

According to the study of the survey of industries on employment in factories (Census and Sample Portions) in the year 1961, industrial workers represented 368 persons per lac of population in U.P. as against 805 persons for

⁹The number of agricultural labourers had increased from 32.61 lakhs in 1961 to 54.97 lakhs in 1971 i.e. by 68.6 per cent indicating that a large number of small cultivators, who were classified as cultivators in 1961 census, reported agricultural labour as their main activity in 1971.

India. Another indication of the industrial backwardness of the state is apparent from the fact that 87% of the population still lives in villages as compared to 82% for the rest of the country. The bulk of contribution to industrial production in the state originated from the unorganised sector, which was responsible for 61.0 per cent of the total contribution from the industries sector, the percentage for the country being 39 in 1969-70. These units are by and large run with obsolete equipment which results in high costs and waste of scarce resources. In view of the existing heavy pressure of population on land thus creating smaller and tiny holdings and lower productivity greater efforts will have to be directed in developing other sectors of the state's economy so that a fair population of the agricultural population could be diverted to non-agricultural pursuits. Further, it is not possible to expect the agricultural sector to modernise without an adequate industrial base to meet the requirements of this sector.¹⁰ S. P. Sen has rightly advocated for a connecting link between large industries and agriculture through a chain of small and medium industries if eastern U.P. has to develop on the lines of Eastern Punjab (now Haryana) and thus remove its economic backwardness and of Uttar Pradesh as a whole.¹¹

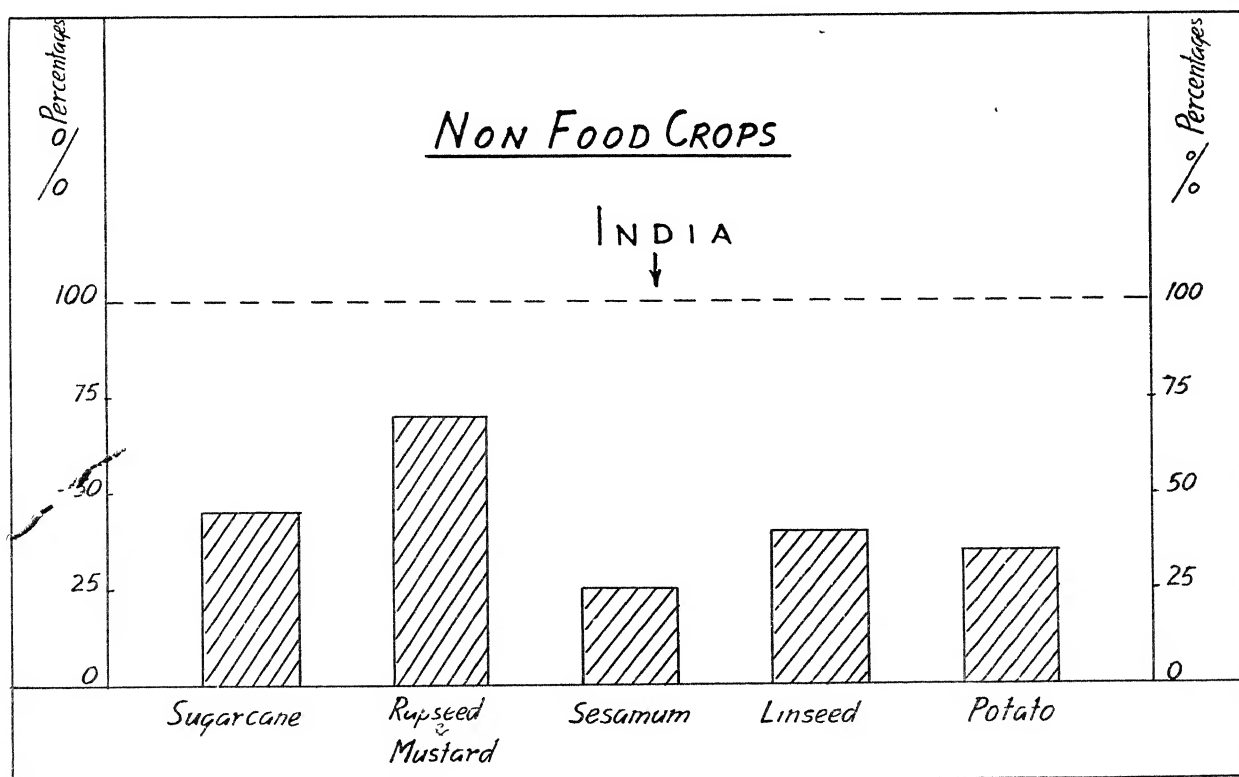
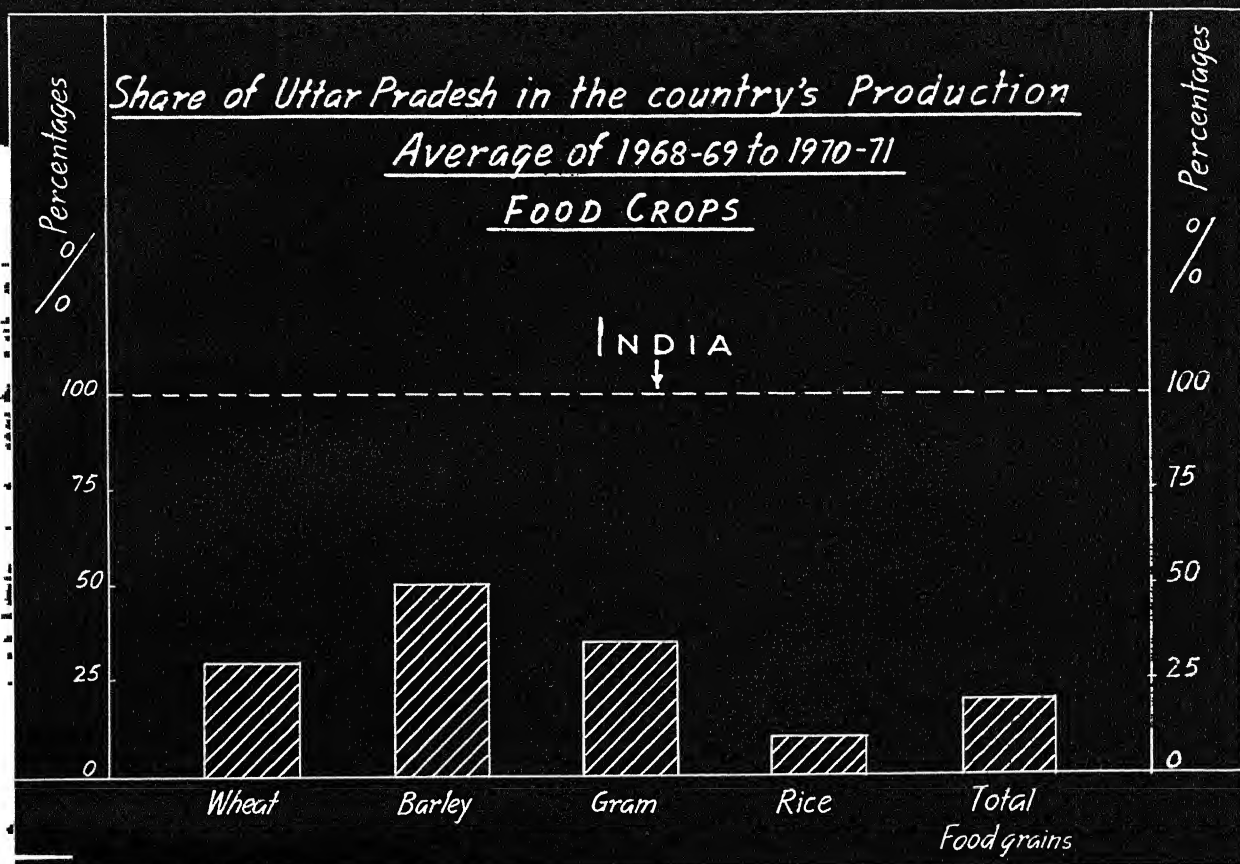
¹⁰ Govt. of U.P., Planning Deptt. : Working Paper - Fourth Five Year Plan - p. 176 (Aug. 1964).

¹¹ S. P. Sen : The Strategy for Agricultural Development, p. 11.

Agricultural Sector In The State Economy :

The economic development of Uttar Pradesh is today heavily dependent on the agricultural production. The performance of this sector is crucial to the food self-sufficiency not only for U.P. but also of the country as a whole. The State produced 18 per cent of the total foodgrain production of the country in 1970-71. The contribution of agriculture in the State income was 63 per cent in 1950-51 as against 49% for the country. It still forms about 58% of the State income, as against 42% for the country as a whole.¹² U.P. occupies only 9 per cent of the area of the country, but its plain area forms 16 per cent of all the plain area in the country. The important food crops grown are wheat, barley, paddy, maize, bajra and gram. About one-third of the country's total wheat is produced by the State; similarly more than half of the country's aggregate production of barley is contributed by U.P. The State also accounts for 29 per cent of the country's total grain production. Thus U.P. accounts for more than one-third of the country's total rabi, food - grains production. Among cash crops, the contribution of the State in the country's total production of rapeseed and mustard is more than three-fourths, and about half of the total sugarcane crop of the country is grown in this State.

¹² Fifth Five-Year Plan Draft -- p. 55.



However, the dominant position of agriculture in the national context is due more to the size of the State than to the performance of the agricultural industry. Agricultural productivity has not shown a comparative marked improvement during last 25 years looking to the peculiar advantageous position in natural factors and substantial expenditure by the State in the Five Year Plans. Taking a long view, the agricultural development of Uttar Pradesh can be broadly divided into two periods : The first period from 1952-53 to 1964-65 and the second period from 1964-65 onwards. From available data it appears that during the period 1952-53 to 1964-65 the growth rate of agricultural production in Uttar Pradesh was disappointing, at 1.66 per cent per annum. This was only a little more than half the growth rate of 3.01 per cent per annum during the same period in the country as a whole. After 1964-65, a welcome trend in the foodgrains production is emerging in the State.¹³ This is mainly due to the fact that the wheat revolution in the neighbouring state of Punjab is spreading to the western districts of Uttar Pradesh. Whereas wells and canals provide 36 per cent of the net sown area with assured irrigation in U.P., only 20% once receives irrigation in the country as a whole. Out of 54 districts in the State, four districts -

¹³ Directorate of Agriculture, Uttar Pradesh.

Meerut, Aligarh, Gulaudshahr and Muzaffarnagar -- top the list in respect of irrigation, with more than 70 per cent of the net sown area under irrigation. With (1950 = 100) the index of wheat production shows a very gratifying increase of 178% of potatoes by 162% and of rice by 89% in 1971-72.¹⁴

The rates of growth in agriculture have recorded large variations during the different periods because this sector is still largely subject to the vagaries of weather. The rate of growth in agriculture in U.P. which was only 0.4 per cent during the Third Plan, rose to 3.6 per cent during the three years of annual plans, and 5.3 per cent during the first two years of the Fourth Plan.¹⁵ The third year of the Fourth Plan viz. 1971-72 was characterised by flood and drought resulting in a fall of 8 per cent in agricultural production and thereby reducing the overall rate of growth in agriculture to 1.2 per cent during the first three years of the Fourth Plan.

Level Of Development :

The economy of Uttar Pradesh has not kept pace with the economy of India as a whole. The share of Uttar Pradesh which was about 17.5 per cent in the total national income before the planning era, came down to 15.5 per cent

¹⁴Uttar Pradesh Ke Pramukh Krishi Ankde : 1950-51 -- 1971-72.

¹⁵Significantly the growth rate for other States was not higher except Haryana and Punjab. Fifth Five Year Plan U. P., p. 45.

in the last year of the second Plan.¹⁶ During the second decade of planning while the share of U.P. in the total income of the country at current prices had been ranging between 13 and 15 per cent this share at constant prices declined from 13.5 per cent in 1960-61 to 12.9 per cent in 1970-71 because of a relatively faster rate of growth in the national income than that in the state income.

Economic backwardness of U.P. can be further viewed at by comparing its rate of economic growth with the growth rate of the country as a whole. The following table gives the rates of growth in the total state income and per capita income during the various plan periods.

Table No. 2

Rates Of Growth In India And Uttar Pradesh (per cent per annum)

Period	<u>Total Income</u>		<u>Per Capita Income</u>	
	India +	U.P.	India+	U.P.
1	2	3	4	5
First Plan	3.4	1.9	1.6	0.5
Second Plan	4.0	1.8	1.8	0.2
Third Plan	2.5	2.1	0.3	(-)0.1
Three Annual Plans	4.3	2.8	2.1	1.5
Fourth Plan(1969-70 ^P to 1972-73)	2.9	3.1	0.6	1.3

Source : (1) Fifth Five Year Plan, p. 43

(2) Table II, T.E.C. 1974 -- p. 2.4.

*Net national product. P = Provisional

¹⁶Report of the Fifth Five Year Plan, U.P.
Draft - p. 39.

The growth rates in the state have been generally lower than the corresponding growth rates in the country except during the first four years of the Fourth Plan, when the growth in the State income of U.P. was slightly higher than the national average. The growth rate in Uttar Pradesh's economy during the decade 1960-61 to 1970-71 was 2.97 per annum against 3.47 for the country. If the per capita income is taken as an indicator of economic standard, U.P. is one of the poorest states of India. Against the all India per capita income of Rs. 347, per capita income in U. P. stood at Rs. 276 in 1970-71 (at constant 1960-61 prices).¹⁷ And compared to per capita income in Maharashtra (an industrially advanced State) and Punjab (an agriculturally advanced State) per capita income in U.P. accounts for only 66% and 58% respectively.¹⁸ In most of the years between 1960-61 to 1972-73 the per capita income of Uttar Pradesh was less than the all India average. Generally it ranked only above Bihar and Orissa in this respect.

The State government have recognised fifteen Eastern districts, eight Hill districts and four Bundelkhand districts of the State as backward on economic considerations and their special development problems.

p. 42 ¹⁷Report of the Fifth Five Year Plan Draft - Table 5.4.

¹⁸Uttar Pradesh Taxation Enquiry Committee, Ch. 2 Annexure I. See the table in Appendix, 1.4 and 1.5 1974

The National Council of Applied Economic Research in the study entitled "Inter - district and Inter State Income Differential 1955-56" found out that out of 58 poorest districts in the country, U.P. had 22 districts followed by Bihar 12, Orissa 5, Madhya Pradesh 5, Mysore and Maharashtra 3 each and so on. According to the Census Report of India, 1961, the total population was distributed among different levels of development. Out of the total 78 districts of the lowest category in the country, U.P. had 28. The population of these 28 districts of the State was 50.12 per cent of the total population as against 19.66 per cent of the country's population falling in the bottom category. The States of Gujarat, Kerala and Madras did not have even one per cent of their population falling in the bottom category.¹⁹ According to a recent study of the Planning Commission²⁰ out of 46 plain districts of Uttar Pradesh included in the study 33 districts were backward as these fell in the last quarter of the 303 districts in the entire country when arranged in the ascending order of backwardness. Even more concerning feature is that amongst the 15 most backward districts of the country, eleven districts were from this State and none of the districts of this State could be ranked amongst the first quarter which could be called developed districts.

¹⁹Govt. of U.P. -- Report of the Fourth Five Year Plan p. 24.

²⁰"Indicators of Regional Development, District-wise data, Level of Economic Development," Planning Commission brochure.

The Backward Regions Of The State :

Uttar Pradesh has been divided into five economic regions by grouping contiguous districts having more or less similar geographical and climatic conditions, economic activity pattern, population density and agricultural conditions. On the basis of agricultural productivity, lack of industries and inadequate infra-structure, three regions of the State, namely, Eastern, Bundelkhand and Hill are relatively more backward than other areas of the State, although in the remaining two regions also there are some pockets which are relatively more depressed. Thirty-four districts have no town with population of 1 lakh or more. As we move from the west to the east or from plain to the hills the number of large towns generally dwindles.²¹

Eastern U.P. :

Eastern U.P. comprising the fifteen districts of Gorakhpur, Varanasi and Faizabad divisions is inhabited by 3.32 crores of people out of the State's total population of 8.82 crores according to the census of 1971. The region is the eastern part of the great Gangetic Plain traversed by the rivers, the Ganga, the Yamuna and the Ghagra and their numerous tributaries. The percentage of

²¹ Baljit Singh -- Economic Profiles of Uttar Pradesh. Table I.

rural population is very high in this region. While 87.1 per cent of the population of the State is rural, it is 92.6 per cent in the eastern region. The size of holding is very small and uneconomic.²² Percentage of holdings below one acre varies from 13.6 per cent in Chazipur to 25.4 per cent in Azamgarh. The level of value of agricultural production per hectare and per capita in the eastern region were less by 8 per cent and 29 per cent respectively, than the levels obtaining in the State.

In these districts the agricultural income, which is low for each acre of the cultivated land gets further reduced when shared by more persons. Not only the cultivated land is less per person or per family on an average but its distribution is very skewed, with the result that a very large number of families at the lower end would have much less income than indicated by the average income.²³ A major factor adversely affecting the economy and the region is the recurrence of floods and droughts. The industrial sector of the economy is very inadequately developed except for some concentration of sugar factories in certain pockets. The number of persons per lakh of population employed in registered factories during the year 1970 was 219 as against the State average of 418.²⁴

²²Census of Holdings U.P. 1971

²³Report of the Joint Study Team U.P., Planning Commission, 1964 p. 53.

²⁴U.P. Govt : Report of Fifth Five Year Plan - Draft - P. 309

Lack of employment has forced a large number of persons to go outside the state for employment. Persons of eastern U.P. abound in the cotton textile factories of Bombay and Ahmedabad, jute mills of Calcutta, Coal mines of Bihar and in the tea gardens of Assam. In spite of high migration the percentage of wholly unemployed is 4.3 per cent of the labour force in eastern districts as against 1 per cent in the western districts of the State.²⁵

Bundelkhand Region :

The Bundelkhand region comprises the four districts of Banda, Hamirpur, Jalaun and Jhansi. This tract is part of the great Central Indian Plateau, consisting mostly of valleys, low round hills, ravines and crags. The slope of the area is towards north - east. The area is generally deficient in rainfall. It constitutes 4.9 per cent of population and 10 per cent of the area of the State. Agriculture is the principal source of livelihood and about 80 per cent of the workers were employed in agriculture as per 1971 census. Despite comparatively larger holding possessed by the households in this region, productivity is much lower than the State average on account of low fertility of the soil and lack of irrigation facilities. Industrial development in the region is also poor. The number of workers employed in registered factories per

²⁵Report of the Joint Study Team, U.P. Planning Commission, p. 16.

lakh of population in 1970 was only 152 against the State average of 418. The total value of the industrial production in the organised sector in 1968 in this region was only Rs. 4 crores compared to the total value of Rs. 731 crores in the State.²⁶ The development of small scale industries is also inadequate in this region. According to a survey conducted in 1970 in the urban areas of the State, it was found that out of about 17,000 small scale industrial units employing 5 or more persons, only 2 per cent of them were located in this region.

The region has certain special problems such as poor soil fertility, great paucity of roads, poor accessibility to rural areas, acute shortage of drinking water in larger tracts, existence of vast area under culturable waste and lack of irrigation facilities. An idea of the lack of rural electrification facilities in this region may be had from the very meagre number of electrified villages, which constituted only 9.9 per cent of the total number of villages as against 21.1 per cent in the State in 1972.

Hill Region :

The region is sparsely populated, the density per square kilometre is 73. The rural population accounts for 87 per cent, the same as is for the State. The

²⁶ Report of the Fifth Five Year Plan, ^{U.P.} p. 311.

population and area of the region are 38.08 lakh persons and 51,100 square kilometres respectively, constituting 4.3 per cent and 17.4 per cent of the States population and area. According to the 1971 Census 75.8 per cent of the workers were engaged in agriculture, land being rocky, cultivation is possible only in the valleys and slopes of hills, small holdings are very predominant as the area available for cultivation is small. The cultivable waste land was 22.4 per cent of the net area sown as against the corresponding percentage of less than 10 in the State.

Although the hill region is rich in forest resources and substantial mineral resources also exist here, the region is not industrially developed. This is evident from the fact that the number of workers employed in registered factories per lakh of population in 1970 was 258 against the State average of 418. The level of per capita value of industrial production was 31 per cent below the state average compared with 62 per cent above the State level in the Central region and 26 per cent above the State level in the western region.

Excepting Dehra Dun and Nainital districts the rest of the region is an economically depressed tract. The poor means of communications together with mountainous terrain are among the factors inhibiting the development of this region. Drinking water facilities are very inadequate in this region. The gravity of the problem of this basic amenity can be observed from the fact that

about 51 per cent of the populated villages of this region have either no or meagre drinking water facilities.

However, the region has potentials in several fields which should be fully exploited.²⁷ Transport facilities should be developed which would help in bringing down the forest produce from the upper reaches of the mountains, particularly the river navigation which is prevalent even today for carrying heavy logs of timber down the stream. There are good prospects for the development of horticulture in all the hilly districts and potato yields could be substantially stepped up by introduction of better seeds. There are mineral deposits particularly of limestone, magnesite and phosphatic shale in this region which should be fully explored. The development of minerals, forests, horticulture and agriculture should also lead to the establishment of the related industries and lead to a sizeable increase of per capita incomes in these northern boundary districts of the State.

The Problem Of Resources :

As Uttar Pradesh, during the last 25 years of the planning era, has been left behind the other progressive States of the country, it is necessary that in the interests of overall economic development and rise in per capita

²⁷ N.C.A.F.P. : Techno-Economic Survey of U.P.,
p. 14.

incomes of the whole country, this vast region with the largest population of any single state makes faster rates of growth than is visualised for other states. The basic aim of planning in under-developed countries in the initial stages of development is to break the vicious circle of poverty leading to low level of investment resulting in continued low per capita income.

"The essence of this process of transformation of a static and stagnant economy into a self-reliant and self-generating one lies in the effort to push up levels of investment which would increase per capita income, a part of this increase being made available for further investment."²⁸

The characteristic features of the Uttar Pradesh's economy, its various resource advantages and disadvantages have been examined in the earlier paras. Despite much favourable agricultural base and a high degree of production potential, in the form of soil-climatic conditions, water resources etc., Uttar Pradesh is one of the states where the benefit from planning as measured in terms of increase in per capita income has been on the low side.²⁹ The state

²⁸ Govt. of U.P., Third Five Year Plan, Report, p. 1.

²⁹ H.C.A.F.R. : Techno-Economic Survey of U.P., p. 15.

did not have its due share in plan allocations during the various five year plans. A comparison of the per capita plan outlay and central assistance of U.P. with the average of other States would show the disparity:

Table No. 2
Plan Outlay And Central Assistance

Period	Per Capita Plan Outlay (Rs.)		Per Capita Central Assistance (Rs.)	
	U.P.	All State's average excluding U.P.	U.P.	All State's average excluding U.P.
First Plan	24	40.94	13.38	25.76
Second Plan	34	54.46	17.01	27.51
Third Plan	75	90.54	44.87	55.65
Three annual Plans	52.63	60.43	30.54	36.49
Fourth Plan	103.08	122.39	56.19	64.52

Source : Planning Commission : Govt. of India

The State with meagre industrial resources, dense population, small plan allocations and inadequate assistance has not made adequate headway and is tied to a stagnant economy and a comparatively backward social base.³⁰

³⁰ Working papers ~~---1---~~ Relating to Fourth Five Year Plan : Uttar Pradesh 1964. p. 1.

The Fiscal System :

Under the Indian federal fiscal system economic power and authority to levy and collect taxes for the public exchequer rest in both the central (federal) and state governments according to an arrangement well defined in the constitution of the country. The constitution also provides for a system of tax sharing, grants and loans, and other fiscal instruments by which the central and state governments discharge their public responsibilities. As a recent study on State's resources observes:

"The fiscal aspects of planning are concerned with the mobilization, distribution, and utilization of the resources of the country to achieve a desired rate of growth and social justice. Social justice includes the amelioration of regional imbalances arising from uneven factor endowments."³¹

In view of the widening gap between the normal revenue resources of the states and their expenditure commitments the Finance Commissions had to recommend increasing amounts for transfer to the States. The quantum of Plan grants are determined by the Planning

³¹S.N. Krishnan : Agricultural Taxation and State's Resources, p. 3., U.S.A.I.D., New Delhi.

Commission on the basis of the size of the State Plans and what the individual State intends to spend from its own resources. For all states taken together central contributions accounted for 23.3 per cent of the total revenues in the year 1960-61. State's dependence on Centre increased and its contribution in 1973-74 was 41.8 per cent of the total revenues. In respect of Uttar Pradesh the increase was even of higher order. In 1960-61 centre's contribution in total revenue of Uttar Pradesh was 21.6 per cent. In 1973-74 the share increased to 50.8 per cent.³²

The devolution of Union taxes and grants-in-aid of State's revenues may have helped in resolving to a certain extent, the problem of maladjustment of resources and needs between the Centre and the State's Governments but they have not been of much assistance in removing the regional disparities in income and the needs of different States. Moreover, they have created a situation where spending has been divorced from revenue raising and a feeling of complacency has been developed in the States for the last many years. A seminar report on the problem of State resources rightly observes:

"No amount of central taxation or rationalization of its structure can remove any lacuna, imbalances or disproportionalities from taxation of nearly half of the total national income

³²Uttar Pradesh T.E.C. 1974 - p. 2.8.

originating in agriculture and in consequence between the agricultural and non-agricultural sectors inter se. The difficulty is so obvious that unless the States pull together along with the central Government in their respective spheres of taxation, the federal system of finance may stand in the way of both an equitable distribution of the tax burden and effective mobilisation of resources through taxation."³³

Objectives Of Present Study :

In the context of a persistent underdevelopment in the economy of Uttar Pradesh, the low income in the State has expectedly led to low per capita plan expenditure. The high density of population (particularly in the eastern U.P.), and lack of infrastructure -- roads, power, irrigation and drinking water coupled with absence of mineral resources and a strong industrial base have created serious bottlenecks in the growth of the economy. The study aims at making optimum use of the natural factors under the existing land rights and revenue system. But it also aims at a reformed system of agricultural taxation and farm economy to make the agricultural sector more

³³ Paljit Singh : An approach to State Taxes (Seminar on mobilisation of State Resources - p. 10) Ed. M.D. Joshi.

productive as also contributing more finances to the exchequer to meet the present resource scarcity and inflation. For the lower level of authority in a federation, tax policy is the most powerful method of mobilization, as it cannot resort to deficit financing on a substantial scale and has only limited borrowing powers and capacity, looking to the recent spurt in prices and production of the agricultural commodities, huge public expenditures incurred in the Five Year Plans on the farm sector and inter-sectoral inequity in tax burdens it is proposed to evolve a direct system of land taxation which satisfies the following conditions :

- (i) it should be based on the potential farm production.
- (ii) should be a progressive levy unlike the present proportionate tax.
- (iii) Devising a tax and revenue system which will favourably respond to changes in money incomes and thus reduce the need for additional tax measures.
- (iv) Giving incentives to higher production and voluntary savings by individual cultivators and co-operative farms.

CHAPTER II

AGRICULTURE AND ECONOMIC DEVELOPMENT - A CLIMAX OF WORLD EFFICIENCY

Poverty in the underdeveloped regions of the world is almost always associated with the low incomes derived from agriculture. The initial size and backwardness of agriculture suggest wide scope for raising gross national product through agricultural development.¹ Of the world's population, about 60 per cent depend upon agriculture and of these about 75 per cent live in Asia, Africa, and Central and South America, where the yields of agriculture per person are the lowest, and there is lack of economic development.² Although the role of the agricultural sector was a source of much misunderstanding in the earlier post-World War period, it has recently received varying degrees of emphasis in the agricultural planning and its implementation in the developing countries. As the FCAPE Report points out:

¹John W. Mellor : The Economics of Agricultural Development. p. 10.

²Buchanan & Ellis -- Approaches to Economic Development. p. 237.

"Generally, the common features of agricultural development planning are to expand agricultural production as rapidly as possible to substitute imports and meet the increased demand emerging from the continually growing population and income, and the expansion of traditional and new agricultural export products with a view to increasing foreign exchange earnings."³

Arthur Lewis has emphasised the rate of rapidly rising agricultural productivity as one of the conditions for economic growth. In his two sector model Lewis assumes that there is a surplus of man-power in agriculture (subsistent sector) and that the non-agricultural (capitalist) sector is the dynamic element which absorbs this surplus of man-power. Since the supply of labour available in the traditional sector is assumed to be in effect "unlimited", the transfer of man-power to the capitalist sector is determined by the demand for labour in that sector, which in turn is limited by the rate of capital accumulation. According to Lewis "persistent growth in non-farm sector will reduce absolutely the number of workers in the farm sector" and this is the most significant method by which the rate of investment in the underdeveloped countries

³Economic Survey of Asia and The Far East, 1965
Ch. VI, Agricultural Development p. 207.

can be raised to 12/15% of national income from around 4%, which is normal in these societies.

"The proportion of the population engaged in agriculture, and the rate of growth of agricultural productivity are two of the best indices of the extent and rate of economic growth".⁴

Agriculture's Contributions To Economic Development :

The increased agricultural output helps economic development with food and fibres, expanding exports and releasing excessive labour force for use in manufacturing and other expanding sectors of the economy.⁵ A rapid increase in the food production of underdeveloped countries is urgently needed because of the high rate of growth of population (amounting to 1.5% to 3%) and also the necessity to raise the consumption standards of the masses. With current rates of population growth⁶ and a modest rise in per capita incomes, the annual rate of increase of demand

⁴W. Arthur Lewis : "Theory of Economic Growth", p. 334.

⁵(1) P.F. Johnston & Mellor J.W. : Article, American Economic Review, Sept. 1961.

(11)W.W. Rostow -- The Stages of Economic Growth.

⁶For Certain Asian Countries, See Appendix Table 2.1

for food in a developing economy can easily exceed 3%.⁷ According to a United Nation's enquiry, the average energy intakes in the underdeveloped countries of Asia and Far-East are amongst the lowest in the world and below those considered necessary to maintain normal levels of health. It is, thus clear that in these countries food production has to increase more than in proportion to the annual rate of increase in population. Further as a result of the expansion of population in the cities and in mining and industrial centres dependent upon purchased food, the growth of demand for marketed supplies is a good deal more rapid than the overall rate of increase. Until and ^{un}less underdeveloped countries succeed in achieving and sustaining (either through domestic production or imports) a reliable food surplus, they have not fulfilled the fundamental precondition for economic development.

'In a developing economy agriculture must not only provide for a growing population but also produce a surplus for investment.'⁸ As the dominant sector of an underdeveloped economy, agriculture should make a net contribution to the capital required for overhead investment and expansion of secondary industry and capital projects like

⁷In fact ^{from} 1952-53 to 1967-69 -- Total agricultural production increased by 2.9%. FAO, The State of food and Agriculture 1970, p. 127.

⁸R. N. Tewari : Agricultural Development and Population Growth. p. 22.

irrigation schemes and land development in the rural economy itself. In the classical and neo-classical growth models capital formation constitutes a strategic variable. Contemporary writers on underdeveloped countries attribute the economic stagnation and the vicious circle of poverty to their meagre stock of capital per head of population and the low rate of capital formation. The economy is caught in the vicious circle of low income, high consumption propensity, low savings, low rate of capital - formation and low incomes. Extensive and effective use of fiscal policy for promoting capital formation and restraining inflation is one of the most important potential source of financing economic development. The private savings of a large section of population are insufficient; an increase in private savings is only likely to occur over the longer run after national output rises substantially. However, the rural sector, like other sectors, is characterized by considerable income disparities and a significant part of the agricultural surpluses accrue to what we may call 'feudal' proprietors and intermediaries. 'Economic progress requires that, in the initial stages at any rate, a high proportion of this surplus be channelled into productive investment'.⁹

⁹P. J. Chelliah : Fiscal Policy in Underdeveloped Countries. - p. 65.

A Few Case Studies :

We may consider the important role of the agricultural sector in the economic development of a few developed and developing countries of Asia and Eastern Europe because they largely comply with the existing growth conditions in India -- a high density of population with scarcity of land and capital and low productivity levels in agriculture. The contribution of the agricultural sector may be seen in two respects: (a) How far rise in agricultural productivity encouraged the overall development of the economy? (b) The contribution of the farm economy to the exchequer. In brief, we may review the role of agriculture in the development of Russia, China and Japan and some of the recent developing countries like Korea, Taiwan and Burma and certain developed States (agriculturally) in India like Punjab, Haryana and Tamil Nadu. The idea behind this comparative evaluation of agricultural development programmes and policies is to know in a proper perspective the desirability or otherwise of the functioning of our agricultural economy in India and Uttar Pradesh in particular vis-a-vis its major role as a helper and sustainer of faster economic growth.

Japan :

Japan's experience illustrates how agriculture was able to fulfil its traditional role in the strategy of overall development. The historical setting of the

early stages of Japanese development differed widely from the setting in which newly developing countries are now embarking on economic development. Under the prevailing economic philosophy of laissez faire and expanding trade of primary products the state gave a free hand to the landholders in making improvements in techniques of production under a capitalist system of agriculture.

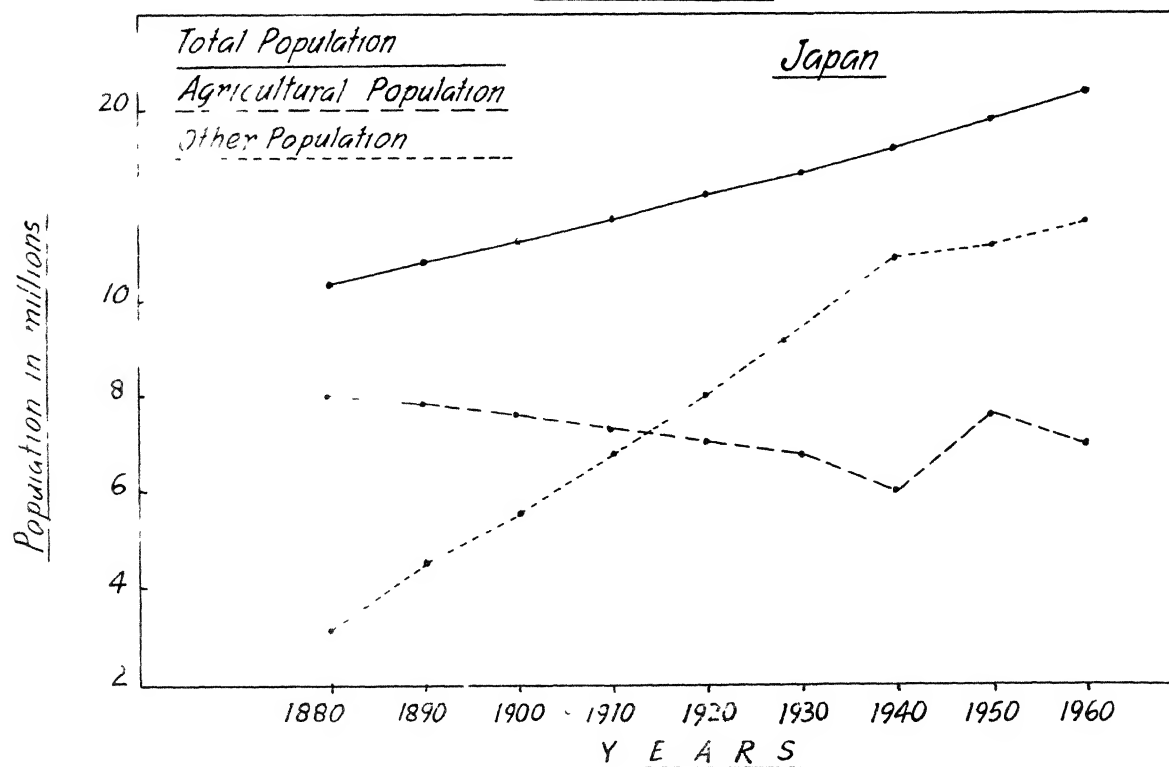
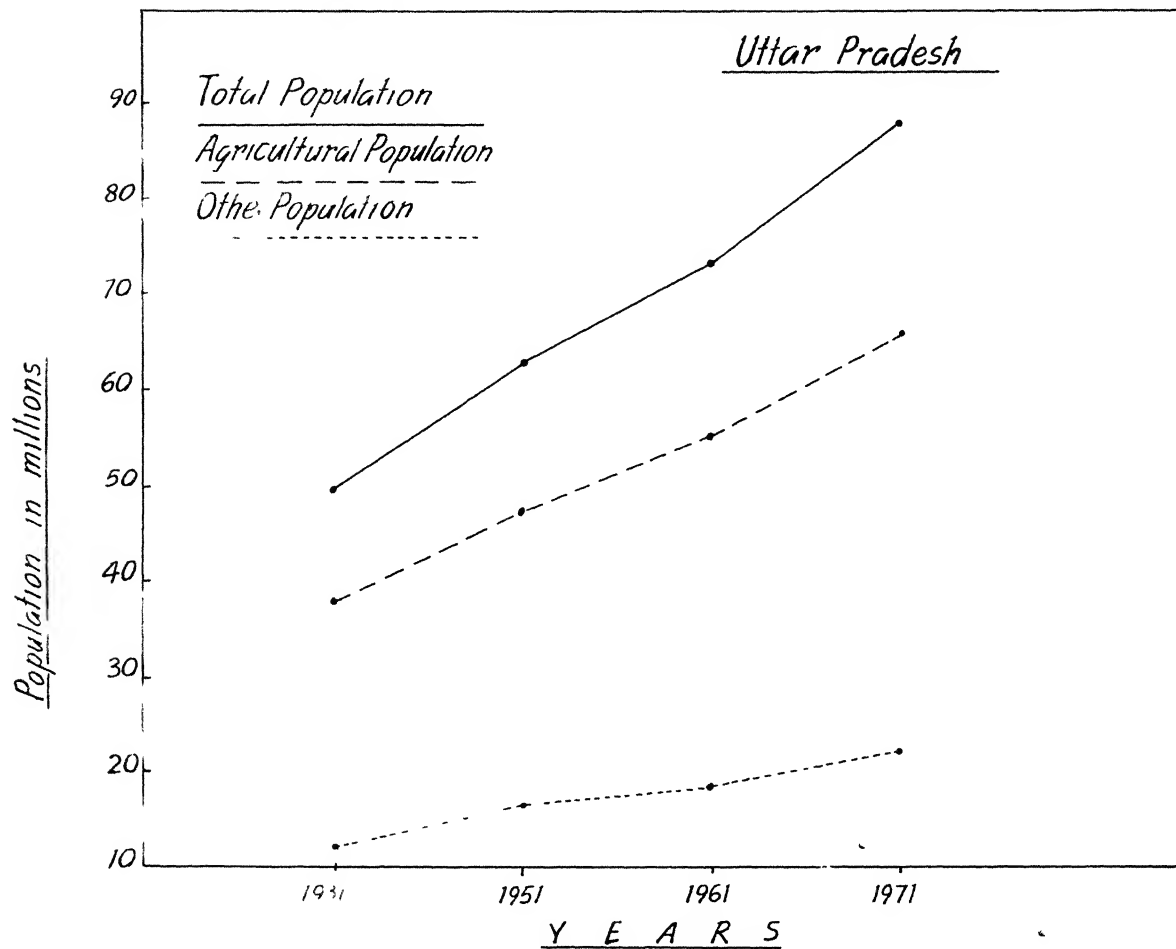
"The concept of welfare had scarcely penetrated Asia in the nineteenth century and some measures used in Japan might today be considered politically impossible."¹⁰

Even with the different set-up and conditions Japan's example provide a remarkable and impressive model for Asian economic development.

Johnston has estimated that during the thirty years between 1881-90 and 1911-20, Japan increased its agricultural output by 77 percent, with the area under cultivation increasing by only 21 per cent as compared with increased yields per acre of 46 percent. During the same period, population increased much less (14%) while the agricultural labour force fell by about 14 per cent. These figures mean that in about thirty years Japan was able to increase per capita food supplies by over 20 per

¹⁰The role of Agricultural Land Taxes in Japanese Development. F.A.O. vide Readings on Taxation in Developing Countries. p. 480..

Economic classification of Population in U.P. And Japan



cent and the output per farm worker by 106 per cent.¹¹ Japan was able to raise agricultural productivity without a significant reduction of the total agricultural work-force, and within the system of small-scale farming. Between 1878 and 1912, although the expansion in the non-agricultural sectors of the economy was exceptionally rapid, it sufficed only to absorb the increment to the total work-force brought about by the population growth.¹² Most of the gains in agricultural productivity were siphoned off by heavy land taxes, amounting to 35% of the rice crops, and contributing about 4/5ths of total government revenue.¹³

The mechanism of extracting savings from small-scale agriculture operated in a background of rising productivity and applied essentially to the increment to incomes that took place in the process of growth. As the F.A.O. study points out

"Without external resources or surpluses from other sectors of the economy there is no alternative but that agriculture should provide

¹¹ Johnston - pp. 499-500

¹² Folke Doving : The share of agriculture in a Growing population, Monthly Bulletin of Agricultural Economic and Statistics, Vol. 8 F.A.O., Aug. Sept., 1959.

¹³ Ohkawa, K. and Henry Fosovsky, "The Role of Agriculture in Japanese Economic Development". Economic Development and Cultural Change, Vol. 9, Part 2, October, 1960.

the "surpluses" needed for the initial phase of economic development. This role of agriculture could, of course, progressively be modified during the later phases. In Japan itself at the present time the surpluses for investment accrue largely from the industrial and other sectors."¹⁴

Russia :

The U.S.S.R. is another case where agricultural surpluses were siphoned off by raising the prices of manufactures relating to farm products and taxing collective farms heavily. By the end of the second Five-Year Plan, i.e., in 1938 U.S.S.R. had advanced to first place in the output of wheat, barley and oats. Progress was made in the yield of commercial crops as well, such as cotton, flax, tea etc.¹⁵ Labour productivity in soviet agriculture may have increased by 25.30 per cent during 1926-38. These gains in agricultural productivity did free many millions for employment in the rapidly expanding industrial sector and, supplemented by a severe squeeze on the food consumption of those who remained in agriculture, offered the principal source for financing Russia's rapid rate of capital formation.¹⁶ Above all through collectivisation of her

¹⁴ Readings on Taxation in Developing Countries - p. 485. F.A.O. Ibid.

¹⁵ U.P. Zamindari Abolition Committee, p. 320.

¹⁶ Schwartz, H: Russia's Soviet Economy. pp. 280, 292-94.

agricultural economy Russia gave a classic example of revolutionary structural reorganisation of agriculture as a concomitant of rapid industrialisation¹⁷ and building up of a socialist society which gave new direction and methods of economic planning to the new born democracies after the World War II, particularly after the defeat of Hitler in U.S.S.R.

The classic case of a crisis in the marketable surplus of agriculture was the scissors crisis in Russia in the 1920s which was corrected through manipulation of the terms of trade in favour of manufactures. A marginal increase in agricultural productivity need not result in increased marketed surplus, since the agricultural producers may retain for their own consumption the entire increment in output. Maurice Dobb believes that

"if there is any factor to be singled out as the fundamental limiting factor upon the pace of development then it is the marketable surplus of agriculture : this rather than the total product, or the productivity, of agriculture in general The surmounting of this limit is accordingly a matter, not of providing appropriate financial policies and institutions, but of the appropriate organization of the social

¹⁷W.H. Nicholls : The place of agriculture in Economic Development from Fisher & Witt : Agriculture and in Economic Development, p. 25.

and economic life of the village, of agricultural production and of commercial exchange between village and town".¹⁸

China:

In the ten years of communist rule since late 1949, revolutionary changes took place on the Chinese mainland in economic organisation, savings and investment and agricultural production techniques with profound effects on the daily lives of the people. The Indian Delegation to China on Agrarian Co-operatives was of the view that the existing yields generally were better than those of pre-war and the year of liberation (1949). The Chinese grew on each acre twice as much paddy and cotton as we did in India between 1955-60.¹⁹ Melenbaum estimates that during 1950-57 aggregate agricultural output rose by 25-30 per cent in China, largely because of increased yields per acre.²⁰ The main methods of increasing production in China were rapidly increasing small-scale irrigation, water conservancy works, more manure to the land (not much use of chemical fertilizers) ameliorating the soil, improved seed and use of new type of farm tools.

¹⁸ Dobb, M. Some aspects of Economic Development : Three Lectures. pp. 45-46.

¹⁹ Report of the Indian Delegation to China on Agrarian Co-operatives, Govt. of India, Planning Commission May 1957 -- pp. 70, 84.

²⁰ W. Melenbaum : "India & China : Contrasts in Development Performance. American Economic Review, Vol. 49, (1959).

Above all the agrarian co-operatives have enabled a successful mobilisation of the surplus manpower leading to the "great leap forward of China." Commenting on the Co-operatives of Liaoning province and Shanghai the Delegation observes :

"Eighty percent of the area cultivated by this cooperative has now irrigation facilities. But for the cooperatives it would have been beyond the means of the average small individual cultivators either to construct so many small wells or to have installed large machines over such a short time."²¹

The Chinese agriculture depicts certain salient features worthy of note for the developing countries like India with high density of population. The Chinese are developing agricultural co-operatives without using large machines such as tractors etc. They realise that machinery cannot be introduced rapidly. By the end of second Five Year Plan it is estimated that the acreage of land cultivated by machines will be only 1/10th of the total land under cultivation.²² Secondly, Statistical difficulties notwithstanding, there can be no doubt that the economy was able to sustain continuous growth in national product

²¹ Report of Indian Delegation to China on Agrarian Co-operatives. p. 73.

²² Ibid., p. 83.

during the period under review at an annual rate much higher than the rate of population increase.²³ Thirdly China has developed many labour-intensive projects and small scale industries for mobilizing underutilized labour in the construction of various capital projects to expand both agricultural and industrial production. And lastly, China has exercised much greater control over savings through heavier taxation of agriculture which supplies at least 60% of total Chinese taxes as compared with only 20% in India.²⁴ Malenbaum concluding his comparative analysis of Indian and Chinese economies opines:

"The lesson of his comparison is not that totalitarian methods are superior to democratic procedures, but that democratic governments must define the tasks of growth more realistically and implement them more faithfully they must successfully solve such vital problems as structural unemployment, underutilized resources, overurbanization, nonmonetized savings, and investment flows".²⁵

²³Choh - Ming Li : China -- Economic Development, p. 3671 Ed. Pepelasis & Others.

²⁴Wilfred Malenbaum : "India & China : Contrasts in Development Performance" American Economic Review, Vol. 49, (1959) pp. 293-95.

²⁵Ibid.

Developing Countries --- Agricultural Development :

In the post - war period the planning strategies of the developing countries does show a concern on the part of these countries for agricultural development. The percentage of public investment to be devoted to agriculture in the latest plans varied a great deal between different countries, though in almost three -quarters of them agricultures share was between 10 to 29 per cent.²⁶ The annual rate of growth from 1956-58 to 1966-68 in developed countries and developing countries respectively was the same (2.7%) for all agricultural products; and 2.9 and 2.6 for food production only. These indicators do not show that progress of agricultural production in the developing countries was lagging behind that in the developed countries. Even so the general comment is that the agricultural sector, in many countries, has not yet fulfilled its role, and continues retarding the general economic development. Prof. Dantwala commenting upon this anomalous position gives two reasons:

"First, there are significant differences in the growth rates of agricultural production between the 75 developing countries. India's rank is 53 in the descending order with the average growth rate of 2.4 per cent. Further, the

²⁶ T.A.O., U.N., The State of Food and Agriculture 1965, pp. 117-118.

contribution of expansion in the acreage under cultivation in the growth of total production was dominant, in the earlier period.

Second and the more important reason for the disappointment with the growth of agriculture in the developing countries is that when comparison of growth is made on a per capita basis, the performance becomes patently inadequate."²⁷

One of the major difficulties in achieving higher rates of agricultural growth has been failure to utilize modern techniques and methods and improved agricultural inputs.²⁸ However, the growth in GNP and the agricultural production varied amongst these countries as is evident from the following table:

²⁷Comparative Experience of Agricultural Development, p. 5.

²⁸*Report, 1965*
ECAFE., p. 214.

Table No. 1
Average Annual Rate of Growth of Gross
Domestic Product at Constant Prices

(Per cent)				
Country	Period	Gross Domestic Product	Income from Manufacturing	Income from Agriculture
Burma	1950/51-1963-64	4.8	11.3	2.4
Cambodia	1952-1962	5.6	4.8	2.5
Ceylon	1950-1963	3.6	3.7	2.3
China(Taiwan)	1951-1964	7.7	10.8	5.7
India	1948-1963	3.2	3.4	2.2
Korea	1953-1964	5.2	11.1	4.1
Malaya	1955-1963	4.9	7.6	3.5
Pakistan	1949/50-1963/64	3.3	7.7	2.0
Philippines	1948-1963	5.8	9.9	4.4
Thailand	1951-1964	6.1	6.6	4.7

Source : ECATF -- Economic Survey of Asia
and the Far East 1969. Table VII.
p. 159.

India accounts for nearly half of arable land and cereal output of the total developing ECATF region. The rate of growth of agriculture in this region, therefore, depends heavily on the rate of growth of the agricultural economy

of India. The performance of Indian agriculture will be better appreciated if viewed against the performances of these countries that have done much better in recent years - say Taiwan and Korea.

Taiwan :

The growth rate in agriculture supported a phenomenally high rate of growth of the economy of Taiwan during the post-war period. The gross national product (at constant 1964 prices) increased at a rate of over 7.5 per cent per annum from the early 1950's as a result of which the per capita income in the country went up by more than 75 per cent by 1964 despite a rapid increase in the population in the intervening period (about 57%). In this phenomenal growth of agricultural incomes both technological factors and institutional factors have contributed. Even before the World War the Agricultural economy of Taiwan was relatively developed as a result of policies actively followed by Japan as a colonial power. It had 55-60% of irrigated arable land & used 88kg/hectare of chemical fertilizers in 1948-49 - 1952-53. In the period under review whereas there have been only marginal increases in irrigated area, the fertilizer consumption went up to 237.0 kg/hectare in 1964-65.

Table No. 2
Change In Fertiliser Consumption

Country	(Kg/Hectare)		
	1949-49 1952-53	1960-65	1965-70
Taiwan	87.09	537.07	--
South Korea	73.63	167.53	--
India	.59	4.43	12.63

Source : (1) U.S.C. Production Yearbook
for different years.

(11) WCAE Bulletin, Vol. VII No. 1
June, 1965.

(111) U.P. With Plan, p. 57.

In the period following the Second World War, not only were many of the larger holdings broken up but a much higher proportion of holdings came to be owner cultivated, so that larger rents no longer had to be paid as before by cultivating tenants. Before 1949, 39 per cent of the total farm families in Taiwan were tenant farmers. They were reduced to only 17% of the total in 1957. K. H. Taj observes:

"The rapid growth of agricultural output in Taiwan in the post-war period was not simply due to technological changes introduced during these years; the foundations for technological

progress had been laid earlier over a period of four decades. Indeed the more immediate contributory factors were recovery and the return to the pre-war trend line, the rapid growth in demand for agricultural products other than cereals generated by growth in income, of the increased incentive given to farmers by land reform for more intensive application of inputs."²⁹

India - (Developed States) :

It is quite evident that India cannot copy Taiwan's pattern of agricultural development, with an irrigation intensity which is about one-fourth, fertilizer use which is about one-sixteenth and insecticides use which is one-twenty-fifth of the latter. A comparative analysis of the yield rates of cereals of some other Pacific countries is revealing. The Federation of Malay, Burma, Cambodia, Philippines have lower proportion of irrigated land than India. Again Burma, Thailand, Pakistan, Cambodia and Philippines use less fertilizer per hectare than India does. But the average yield of cereals in all these countries are higher than that of India.³⁰ If we closely

²⁹K.N. Raj : Some questions concerning growth, transformation and planning of agriculture in the developing countries : Journal of Development Planning, No. 1, U.N., New York, 1969.

³⁰R. K. Lahiri : Agricultural Development in Five developing countries -- a comparative Study. IJAE, Vol. XXII, No. 4, 1967, p. 11.

Follow the factors responsible for agricultural development during the post-war years in all the developing countries under study, it will give us new ideas to accelerate the pace of our development even with our existing resources in man and material.

In the Study of Growth Rates in Agriculture 1952-53 to 1964-65, the Indian rate comes to nearly 3³¹ per annum. The growth rate for India as a whole conceals, however, some important inter-regional differences in agricultural performance. Punjab (now divided into two and includes Haryana), Gujarat and Madras show a much higher rate of growth as compared to other States including Uttar Pradesh and comparable to those of Taiwan and Korea.

Table No. 3

Compound Rates of Agricultural Growth in India, 1952-53 to 1964-65

State	All Crop Output	Food-grain Output	Population
Punjab	4.56	4.17	2.16
Gujarat	4.55	2.06	2.61
Madras	4.17	3.66	1.25
Uttar Pradesh	1.66	0.85	1.84
All India	3.01	2.50	2.19

Source : Govt. of India, Ministry of Food and Agriculture Growth rates in Agriculture, 1949-50 to 1964-65.

³¹ Govt. of India, Ministry of Food and Agriculture Growth rates in Agriculture, 1949-50 to 1964-65. See table in Appendix 2.2

The increase in output recorded in the agriculturally developed States in India can be broken down according to certain proximate and identifiable sources of growth -- namely, extension of area under crops, changes in the crop pattern (in the direction of more highly valued crops), and increases in crop yield per unit of land. The results of such an analysis based on certain available data are given below:

Table No. 4

Relative Contributions Of Different Elements to the Growth of Crop output (In the Punjab, Gujarat & Madras)

State	Percentage increase attributed to				Total
	Area Increase	Change in Crop Pattern	Increase in Crop Yield	Inter Action	
Punjab	69.93	22.38	7.98	-0.29	100.00
Gujarat	22.16	68.21	21.29	-11.66	100.00
Madras	19.70	25.00	52.70	2.60	100.00

Source : P. F. Pinhas and A. Vaidyanathan,
 "Growth of Crop output in India,
 1951-54 to 1958-61 : An analysis by
 Component Elements," Journal of Indian
 Society of Agricultural Statistics,
 Dec., 1965.

While the extension of the area under crops was the major source of growth in the Punjab, and changes in the crop pattern in Gujarat, in Madras it was the increase in crop yield per acre. Let us briefly comment upon the geo-physical and economic factors due to which these States were able to achieve rates of growth comparable to those recorded in Mexico and Taiwan.

Punjab And Haryana :

To Punjab are attributed certain historical reasons of growth like high proportion of public investments in irrigation projects in the pre-Independence period and the construction of the Thakra Mangal Project. Besides there was huge expenditure to rehabilitate the refugees and increase agricultural production to meet the post-partition requirements in foodgrains, cotton etc. Within 25 years of the ruinous experiences of partition, Punjab has not only rehabilitated its economy but has the highest per capita income in the country largely due to agricultural revolution of the last decade.

Impact Of Green Revolution :

Between 1964-65 and 1970-71 the foodgrains production in the State increased at a remarkable rate of 10.6 per cent against the national average of only 3.2 per cent. The cause of this was the seed - fertilizer revolution also known as the green revolution. In 1966-67 the high yielding varieties covered 4% of wheat acreage whereas in 1968-69 it was 60% and today it must be nearly 100%

according to the available statistics. The fertiliser consumption was on an average 75.2 kg. per hectare of net irrigated area³², which was much larger than the Indian average. The tube-wells determine the rhythm of the new technology and, having increased in number from 7,500 in 1960-61 to 110,000 in 1968-69, they are the core of the agricultural transformation of the State.³³ Except for a few areas, Punjab has a large quantum of underground water suitable for irrigation purposes. The lack of government irrigation facilities spurred farmers to sink private tube-wells, and the resulting prosperity has led to the establishment of many agro-service industries. In 1960-61, the net irrigated area was 54% of the net sown area. This percentage increased to 71 in 1970-71. In 1970-71, 92% of the net sown area in Amritsar district had irrigation facilities.³⁴ Pandhawa has rightly observed:

"The factors which have contributed to the Green Revolution in Punjab are a hard-working and intelligent farming population, a good agricultural base provided by wise planning including consolidation of holdings and resettlement of refugees, new varieties of wheat, increased use

³²Fertiliser Association of India, Fertiliser News, Sept., 1972, p. 89.

³³Wolf Ladejinsky : The Green Revolution in Punjab Economic and Political Weekly, June, 1969. P. A-73.

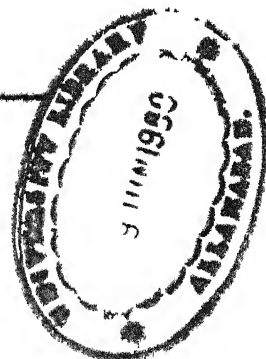
³⁴Govt. of Punjab, Economic and Statistical Organisation, Statistical Abstract of Punjab, 1971, 1972,

of fertilisers, tapping of groundwater by tube-wells powered by electricity or diesel, credit facilities and price support policy adopted by the Government of India."³⁵

Production And Marketable Surplus :

Punjab, which had begun its post-partition existence with an annual deficit of 35,000 tonnes of foodgrains 25 years ago, has today a surplus of 35 lakh tonnes of wheat alone.³⁵ The State has emerged as a major granary of India and exports the surplus to other States under the direction of the Union Government. During 1968-69 to 1970-71, the average foodgrains production in Punjab was 6.7 million tonnes and accounted for 6.7 per cent of the country's total foodgrains production. Among food crops, wheat is the most important crop in Punjab.⁶ of the total foodgrains production in the State, wheat alone accounts for 70 per cent and its share in the country's wheat production is 23%. This makes it the second largest wheat producing state of India after Uttar Pradesh (32 per cent). Punjab is the major rabi producing State of India while of late it is emerging as an important producer of rice too.

³⁵ Commerce Annual 1972, p. 158.



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2894

307309

Haryana :

Haryana was carved out as a separate State from the Punjab in November 1966. The region now comprising Haryana, was comparatively less developed at the time of the bifurcation. Yet with widespread irrigation facilities, rural electrification and good soil conditions agriculture is well developed in large parts of the State, and Haryana has, therefore, earned the distinction of becoming the second most prosperous State in India after Punjab. Between 1967-68 and 1970-71, the agricultural production in Haryana increased at an annual compound rate of 6.7 per cent as compared to 4.2 per cent for the country. In particular, the foodgrains production in Haryana increased at an annual compound rate of 7.5 per cent against the national average of 4.8 per cent. Although Haryana is one of the smallest states in the country, its marketable surplus of foodgrains is sizeable. It imports raw rubber, sugar, khandasari and tea from the rest of the country.³⁶ The State also possesses the best livestock in the country and has special agro-climatic conditions for promoting animal husbandry.

³⁶Commerce -- Annual No. 1972 - p. 65.

Occupational Structure :

In 1969-70, the income derived from agriculture and animal husbandry in Haryana was Rs. 518 crores or 2/3rds of the total state income of Rs. 778 crores as compared with about 50% for the country. Cultivators and agricultural labourers in the state number 13 lakhs and 4.3 lakhs respectively. These two together account for 65.5 per cent of the total working force as compared to 68.6 for the country and 63% for Punjab. This is a healthy sign in the shaping of economic development of an agriculturally prosperous region and a very suitable example for the neighbouring State of Uttar Pradesh to follow, where the percentage of persons dependent on agriculture is 75%.

Haryana has the advantage of being in close proximity to Delhi, the national capital. This places some of the industrial units of the State in a comparatively favourable position, both for procurement of raw materials and for the sale of their products. As a result, engineering industries at places like Faridabad, Gurgaon, Phadurgarh and Sonapat are fast coming up.³⁷ Parthasarathy has rightly called this development as a

³⁷S. D. Thapar : Industrial Employment in Punjab and Haryana -- 1966-69, U.S.A.I.D., New Delhi, India, July 1972.

"safety value" vis-a-vis the absorption of the technologically unemployed in agro-industries.

Tamil-Nadu :

Madras had to its credit 43.6% of net irrigated area in 1965. During the first decade of planning the increase in gross irrigated area in Madras was 35.9%.³⁸ Examination of growth rates shows that irrigation facilities are of basic importance to agricultural development. The State of Madras, and more particularly some of the districts within it, have many features in common with Taiwan. The area under crops as well as the population are no doubt much higher (about ten and three times as high, respectively, as in Taiwan), but in both cases a high proportion of the cultivated area has been under irrigation for a fairly long period as a result of earlier investments. In fact in the Thanjavur district of the State, where the area under crops is nearly 4/5ths as high as in Taiwan and the population about 1/4th in size, nearly 80% of the crop area is irrigated. This district often described as the rice bowl of south India, grows about 1/4th of the total production of rice in the State.³⁹ With the high percentage of land under irrigation, the State of Madras and

³⁸ Govt. of India, Ministry of Food and Agriculture : Agricultural Development Problems and Perspective, April, 1965.

³⁹ K. N. Raj, op. cit., p. 254.

more particularly the districts like Thanjavur has also come in for special attention in recent years through programmes for intensive agricultural development formulated as part of the Five - Year Plans.

Recent Fiscal Policies In Developing Countries :

Traditionally, taxation has functioned as the major link and the point of contact between the State and the agricultural communities. The fiscal aspects of planning are concerned with the mobilization, distribution, and utilization of the resources of the country to achieve a desired rate of growth. Lying behind the formulation of specific objectives for taxation, particularly in the context of developing countries is (1) to achieve a desirable ratio of savings to consumption out of a given income and out of an expanding national income (2) to strike a balance between agricultural and non-agricultural use of resources, depending in large part on the appraisal of the relative contributions which the two sectors can make to economic development.⁴⁰ The history of economic development in the U. K. the U.S.A. the Soviet Union, Japan and also China shows that it was the surplus cornered from agriculture initially, which was transferred to the

⁴⁰W. W. Heller : The use of Agricultural Taxation for Incentive Purposes -- International Conference Papers, 1954.

other sectors of the economy for developing them. In Poland during the inter-war period the State transferred its appropriations to the private sector. Turkey also followed the same path. Current examples are also provided by the Gold coast, Burma and Uganda where farm incomes have been diverted into productive investment through fiscal measures. These examples conclusively prove that the use of taxation for capital-formation in under-developed countries is not an academic and unrealistic notion.⁴¹

In the developing countries where the average earnings per capita are low, there exist acute disparities in the incomes, and these disparities are more pronounced in the agricultural sector because of the acutely skewed distribution of cultivated land. The Statistics show that in general the degree of skewness in the distribution of land is inversely associated with the level of economic development of these countries of the developing world.⁴² Yet, in spite of these disparities, with a good tax-paying ability of the upper income groups, the agricultural sector passes as, more or less, a homogeneous sector presenting an image of undifferentiated disadvantage for taxing policies and the agricultural elite class

⁴¹ D. S. Nag : Problems of Under-developed Economy, p. 221.

⁴² United States Dept. of Agriculture, Changes in Agriculture in 26 developing nations 1948 to 1963, Foreign Agricultural Economic Report, 1969.

normally manages to take shelter behind the myth of a low or no tax - paying ability of the agricultural sector as a whole.⁴³

The relative share of agricultural taxes decline as the economy of a region improves. The proportion of agricultural taxes to the total tax revenue in Japan decreased from 85.6 per cent in 1882-92 to 37.6 per cent in 1913-17.⁴⁴ In Taiwan land taxes as a ratio of the total tax revenue decreased from 24.1 per cent in 1903 to mere 6.5 per cent in 1943.⁴⁵ This is believed to have declined further in recent decades both in Taiwan and in Japan. The secular decline in the relative share of the agricultural taxes in the total tax revenue indicates an increasing role of the non-agricultural sector in a growing economy. Yet, there is no justification for the decreasing burden of taxes on agriculture when the relative share of the sector in the total Gross National Product (GNP) remains unchanged and the per capita agricultural income increases. In India the relative share of agriculture in Net Domestic Product remained almost unchanged with 49.1 per cent in 1960-61, 48.7 per cent in 1964-65, and 51.4 per cent in

⁴³S. S. Jhll : Agricultural Taxation in a Developing Economy : A case of India, 1972.

⁴⁴Ohkawa, K. Henry Posovsky, "The Role of Agriculture in Japanese Economic Development" -- Ficher & Witt (Ed.)

⁴⁵Lee, Teng - hui : Inter - sectoral Capital Flows in Economic Development of Taiwan 1895-1960.

1967-68^{yet}/the share of agricultural taxes was 21.6 and 8.5 per cent respectively in 1961-62 and 1970-71 of the total tax revenue of the State Governments in India.

The need for agricultural development as a "precondition" to economic growth has been examined. As the largest sector of the economy, production and income per headⁱⁿ/agriculture must increase to bring about sustained economic development. Since the non-agricultural sectors will grow relative to agriculture, a part of "agricultural surplus" should be transferred to the exchequer for planning of development of the economy as a whole. In Indian economic development the strategy of economic plans may not be completely in line with that followed in some other countries during the past century. The socio-economic conditions widely differ today and the relative resource advantage vary from country to country. Yet the review of world experience in agricultural development gives enough evidence of a positive and substantial contribution of a productive agricultural sector.

However, by suitable re-organisation of agricultural planning techniques and institutional reforms, the productivity of the farm sector should be made much more than the growth rate of population. This will require careful analysis of the factors governing farm production in the developing economies. The transformation of traditional agriculture on the lines of Japan, Taiwan or Punjab

are unlikely to be realized in large areas of the developing world in which the natural conditions (particularly irrigation potential) for transforming the technology of agriculture are much less favourable. Through suitable land policy, ownership in land should be encouraged rather than tenancy systems or share-cropping which discourage the kind of investment and intensive input of labour that agriculture calls for. In order to avoid sharp fluctuations in agricultural production (particularly food crops) both productive and protective irrigation schemes have to be developed and small holders enabled to secure sufficient credit for applying new inputs (other than labour) on the necessary scale. Besides, while planning for agricultural development consideration of a nation's total economy have to be kept in mind, particularly the forward and backward linkages of agriculture with other sectors. As Pantwala puts it :

"What is, therefore, relevant is investment for -- and not in -- agriculture, which would include some non-agricultural or industrial investment."⁴⁶

⁴⁶ M.L. Pantwala : Preface to Comparative Experience of Agricultural Development in Developing Countries of Asia and the South-East Since World War II, International Seminar 1971, New Delhi, p. 10.

CHAPTER III

TWENTY FIVE YEARS OF AGRICULTURAL PLANNING AND PRODUCTIVITY IN UTTAR PRADESH

A well-developed agricultural economy being an essential element for sustained economic development, has been the source of strength and foundation of prosperity for every advanced industrial country in the world. Looking to the natural resources of Uttar Pradesh, it is of paramount importance to realise that rising agricultural productivity is the key to economic growth of this State. Agriculture employs over 75 per cent of the total working population and contributes about 60 per cent of the State's income.¹ The National Council rightly observes:

"The strategy of planned effort in this State should evolve round a bold, comprehensive and integrated development of agriculture to which the institutional, administrative and financial machinery will have to be geared to".²

¹Economics & Statistics Department Uttar Pradesh (Annexure 31)

²N.C.A.E.P. : Techno-Economic Survey of Uttar Pradesh - Preface p. (vii).

Keeping in view the importance of agriculture in the economy of the State, priority was given to agricultural development programmes all through the plan periods. Never before in any period of Indian history, so much money has been pumped as a measure of policy into the agricultural sector, as during the last 25 years. In Uttar Pradesh, during the First, Second and Third Plan periods, an expenditure of Rs. 70 crores, Rs. 97 crores and Rs. 219 crores respectively was spent on agricultural sector as a whole. In the fourth Five Year Plan the likely expenditure on this sector is Rs. 370 crores as detailed below :

Table No. 1
Statement Showing Expenditure on Agricultural Sector³

Name of Sector	First Plan	Second Plan	Third Plan	Annual Plans	Fourth Plan (likely)
First Agriculture Allied & Programmes	29.36	39.78	107.32	115.50	206.46
Second Co-operative & C. D.	9.82	31.78	56.82	11.28	27.87
Third Irrigation	30.81	25.43	54.90	48.93	135.93
Total :	69.99	96.99	219.04	175.71	370.26

Source : Fifth Five Year Plan pp. 89-90.

³For details see (Annexure ³/₂).

Indicators Showing Agricultural Progress

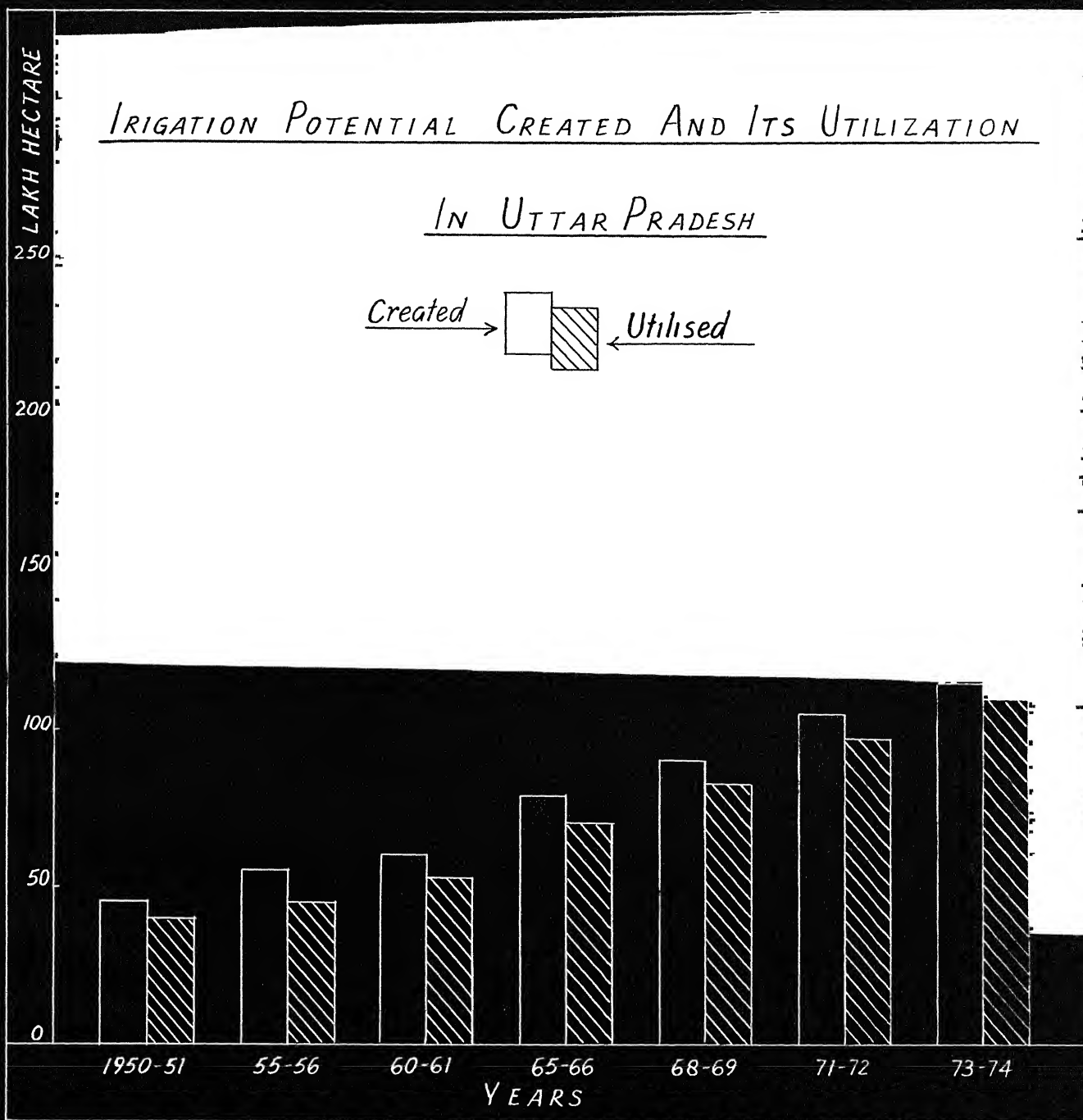
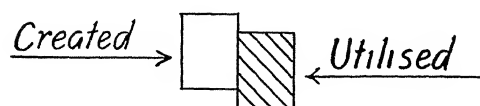
Agricultural production has been a priority sector all through, as this is the sector which produces food-grains, cash crops and raw materials for the industries of the State. The total expenditure in this sector has risen more than 5 times in these years as detailed above in the table. All this expenditure did not go directly into productive schemes, as a part of it maintained the extension and community development programmes without which the district agricultural plans could not have been properly worked. Taking the sector of agricultural production and allied programmes as a whole, the proportion of allocation were next only to irrigation and power in the Third Plan and thereafter. The total area irrigated from all sources increased from about 52 lakh hectares in 1950-51 to 83 lakh hectares in 1970-71.⁴ The net irrigated area also went up from 48 lakh hectares in 1950-51 to 72 lakh hectares in 1970-71, i.e., an increase of about 50 per cent. The number of villages electrified rose from 110 in 1950-51 to 29,415 by the end of Fourth Plan Period, and the number of private tube-wells/Pumping sets consuming electricity which was only 635 in 1950-51 increased to 2,16,446 by the end of the Fourth Plan period.⁵

⁴Uttar Pradesh Ke PramuKh Krishi Ankre(Annexure^{3/}3).

⁵Source : Uttar Pradesh State Electricity Board. (Annexure 3.12, 3.13)

IRIGATION POTENTIAL CREATED AND ITS UTILIZATION

IN UTTAR PRADESH



Uttar Pradesh has experienced some impact of the seed-fertilizer revolution, particularly in wheat. As a percentage of net cropped area, the area under high yielding varieties increased from 2.8 to 38.3 during 1966-67 to 1973-74.⁶ Inspite of the shortage of chemical fertilizers, the use of N_2 , P_{2O5} and K_2O reflected a steady progress since second Five Year Plan.⁷ An inter-State comparison of the use of fertilizers shows that the consumption of fertilizers per unit of cropped area in 1969-70 was lower than that in Andhra Pradesh, Kerala and Tamil Nadu in which commercial crops are grown in greater measure, and also less than in Punjab where agriculture is more advanced. It was, however, higher than in all other States and much above the all India average.⁸ Our field investigation at Allahabad gave us sufficient proof of the input consciousness of the middle and large cultivators, particularly if they have assured irrigation at their command. With the introduction of high yielding varieties programme, increase in irrigation facilities and remunerative prices for agricultural produce, the cultivators are investing 15-20% of the total costs in fertilizers at Allahabad, particularly the Ganapaur region. The use of

⁶ Draft Fifth Five Year Plan, Uttar Pradesh, Vol. I, pp. 55-56. Annexure 3/14

⁷ Source : Fertilizer and Allied Statistics Uttar Pradesh, Table No. 11.

⁸ Fifth Five Year Plan, p. 57 (Annexure 3/4).

fertilizers increased to a marked degree in the cultivation of cash crops like potato and sugarcane.

Agricultural Production :

The major factors which have contributed to increased production of agriculture in Uttar Pradesh are technological as well as of an institutional nature. The abolition of Zamindari with the Act of 1950 put an end to all the intermediaries and brought the cultivator in direct relationship with the State which has been a landmark in the history of the State, security of tenure and reduction of rent have been ensured for a vast majority of the cultivators. Consolidation of Holdings scheme in Uttar Pradesh was started in the year 1953 since fragmentation of land into many parcels constituted a great impediment to optimum utilization of land. Out of the total holding area of 178 lakh hectares, 141 lakh hectares were found suitable for the consolidation scheme. 128 lakh hectares or 90 per cent of the consolidable area has already been consolidated. As a result 79 per cent tenure holders have their holdings now at one place, 16 per cent tenure holders at two places and only 5 per cent tenure holders at more than two places.⁹ An evaluation study on the Impact of Consolidation of Holdings was carried out in 1960 in the districts of Sultanpur and

⁹Uttar Pradesh Taxation Enquiry Committee, 1974, Ch. IV, p. 5.

Muraffarnagar by the Planning Research and Action Institute.¹⁰ The study revealed that in the post-consolidation phase, there was significant increase in food production, the yield of treated area being one and a half times higher than that of the control area. Another evaluation study carried out by the Directorate of Economics and Statistics in 1965 has shown that in the post-consolidation phase, food production has increased and the cultivators are increasingly adopting the improved agricultural practices.

With the supporting institutional framework and the adoption of better farm practices, more irrigation and a net work of community development and extension services in Uttar Pradesh agricultural production increased since 1950-51 both for food-grains and also commercial crops. The following table gives the minimum and maximum food production in the State during the first three plan periods:

Table No. 2
Trends In Food Production

Plan	Minimum Foodgrains Production(Tons)	Maximum Foodgrains Production (Tons)
First Five Year Plan	1,07,70,643	1,30,69,149
Second Five Year Plan	1,11,82,961	1,42,57,178
Third Five Year Plan	1,16,08,787	1,50,06,120

Source : Office of the Agricultural Production
Commissioner, Uttar Pradesh.

¹⁰ Planning Research & Action Institute, Uttar Pradesh, Publication No. 249.

It would be seen from this table that both the minimum and maximum production has been on the increase. Though food production has fluctuated from period to period because of vagaries of monsoon yet the trend is towards increase.¹¹ However, during the first decade of agricultural planning, the increase in production was to a great extent possible due to an increase of area. Elsewhere it has been estimated that during the first two Five Year Plans, while production increased by about 36% the increase in the average yield per acre was only 18%, the rest of the increase in production being accounted for by increase in the area under cultivation.¹² The data on growth rates from the Directorate of Agriculture, Uttar Pradesh also gives the same broad picture, at least for the foodgrains. It may be clearly realised that such advantages are not possible in future agricultural planning in the State. Therefore much more attention need be paid to increasing the productivity of various crops so that inter-State and intra-State productivity differences are reduced which will also maximize the national yields per acre. In the case of rice Orissa and Uttar Pradesh which between them had 23.6 per cent of the all India acreage (in 1961-62) had a yield per acre which was less than 73 per cent of the national average and less than half of the yield per acre

¹¹Uttar Pradesh Ke Pramukh Krishi Ankre 1950-51 -- 1971-72 (Annexure³/5 & 6.)

¹²V.K.R.V. Rao : Agricultural Production and Productivity during the Plan periods. IJAF. Vol. XVII, No. 1.

in Madras. In the case of sugarcane, it is well known that yields in Uttar Pradesh are well below the national average, even though it accounts for nearly 50-60% of the acreage. The lower productivity in Uttar Pradesh cannot be attributed to natural factors. The real causes for the adverse agricultural production conditions in this State are lack of capital formation, defective distribution of inputs and outmoded agricultural practices. It has been rightly observed by an ex-Minister himself:

"One main reason behind these low averages has been the fact that the facilities that were available for augmenting farm production in the last three Five Year Plans were to a great extent usurped by big and more prosperous sections of our farmers, leaving the bulk of small farmers to feel as helpless and handicapped as they were before the launching of the Five Year Plans."¹³

New Technology In Agriculture :

On the whole, during the three Annual Plans and the Fourth Plan period, the progress in agricultural production in the State has been encouraging and there seems to be a break-through in our wheat production

¹³Shiva Raj Singh : Problems of Agriculture
Commence : The State of Uttar Pradesh - A Survey,
October 31, 1970.

particularly. The new strategy is based on more crops a year and higher yields per crop and emphasis on agriculture research and advanced agricultural technology, which are being treated as major inputs of agricultural production.¹⁴ Recent data of agricultural productivity in Uttar Pradesh was Rs. 1,447 for the period 1967-68 to 1969-70 which is quite higher than Rs. 1,037 for all States in India.¹⁵ A perusal of the inter-State figures of per hectare yield shows that while per hectare yield of pulses in Uttar Pradesh during 1970-71 was higher than that in any other State of the country and the All India average as well, and that of potato and wheat was almost at par with the All India average, the same cannot be said of other crops like rice, maize and sugarcane. Even in wheat, the State has to go a long way to come up to the level of Haryana, Punjab and some other States.¹⁶

There has been a substantial increase in food production, from 117.75 lakh tonnes in 1950-51 to 144.86 lakh tonnes in 1960-61 and 205.00 lakh tonnes in 1973-74 (likely) against the Fourth Plan target of 214 lakh tonnes.

¹⁴ Report of the Fifth Five Year Plan Draft p. 123.

¹⁵ Fifth Five Year Plan, p. 122. (Annexure ^{3/}_{4,5} 7).

¹⁶ ^{3/}Uttar Pradesh Fifth Five Year Plan - p. 61 (Annexure/8).

In certain years in between the production was lower owing to natural factors like severe drought in 1965-66, unprecedented floods and adverse weather conditions in 1971-72. The growth rate of foodgrain production during the period 1965-66 to 1971-72 has been 6.5 per cent per annum taking a moving average of three years' production.¹⁷

Table No. 3

Food Production In Uttar Pradesh

Year	Food Production (In lakh tonnes)
1950-51	117.75
1955-56	120.58
1960-61	144.86
1965-66	132.91
1968-69	160.41
1969-70	174.13
1970-71	194.65
1971-72	174.64
1972-73 (Anticipated)	187.00
1973-74 (Likely)	205.00

Source : Fifth Five Year Plan, p. 58.

¹⁷Ibid. p. 58 (Annexure^{3/}9).

The main objective of the Fourth Five Year Plan in agriculture was to achieve self-sufficiency in food.¹⁸ The requirement of foodgrains at 16. oz. of cereals and 3 oz. of pulses per adult per day for the projected population of 96.77 million by 1972-74 works out to 161.71 lakh tonnes. Besides, some quantities will also be needed for cattle feed, seed for sowing, losses in storage and reserve for lean years. The total requirement, therefore, works out at 217.42 lakh tonnes which was probably revised to a round figure of 214 lakh tonnes. The State Planning Institute has estimated the demand for foodgrains as 259.41 lakh tonnes in 1978-79 and the projected production for the same year is 280.66 lakh tonnes.¹⁹ The growth rate of foodgrain production thus comes to 6.5 per cent. Since the demand of agricultural products other than foodgrains increases faster with an increase in income the rate of growth for non-foodgrain crops will have to be relatively higher.

Since the economy of the State is predominantly agricultural, it is necessary that the supply of agricultural commodities should increase commensurately with the expansion of demand for these products. In fact, agricultural production in the State should increase a little faster than the demand to have a marginal surplus and for

¹⁸Uttar Pradesh - Fourth Five Year Plan - p. 76.

¹⁹Report Fifth Five Year Plan - p. 99.
About 85% of total cropped area in Uttar Pradesh is devoted to Foodgrain Production.

the maintenance of a buffer stock for lean years as also to meet requirements of deficit areas of the country."²⁰

Regional Variations In Productivity :

Being a large State in regard to area and population and wide differences in soil conditions rainfall and irrigation facilities there are regional variations in per capita and per acre productivity of agriculture in Uttar Pradesh. Productivity is a physical concept and describes the changing relation between output and one of the major inputs like land or labour or capital. With scarcity of cultivated land, the major attention has, of course, to be given to yield per acre. But the rate at which our economy grows depends on the relative rate of growth of both production and population. "In a sense, therefore, economic development is a race between these two powers, the power to increase production and the power of population to outpace or outstrip production."²¹ It would be a mistake to think that a mere increase in inputs would bring about the revolution in agriculture such as the one that preceded the Industrial Revolution in England or Japan, and the one that we need in this

²⁰Fifth Five Year Plan, Uttar Pradesh - p. 99.

²¹R. N. Tewari : Agricultural Development and Population Growth, pp. 3-4.

country, if the general advance on the economic front is not to be halted. Dr. Loknathan earlier observed in a Seminar that what we need is a national awareness to utilize effectively the inputs that go into the land. The crux of the problem is how to get the most out of these inputs, how to organise farming in such a way that out of every acre we cultivate, out of every cusec of water we bring to the land, out of every ton of fertilizer and what is most important out of every man-hour that our hard working cultivators put into the land we get the maximum return.²² Taking three major crops in Uttar Pradesh wheat, rice and sugarcane we can get an idea of the regional disparities in productivity during the first two decades of agricultural planning.

²²Seminar on agricultural productivity held at Vigyan Bhawan in New Delhi (1965).

Average Yields For Selected Crops (1951-71)

(In Pounds/Acre)

Region/State	Rice										Wheat										Sugarcane									
	1951-52	1955/60	1969/70	1950/51	1955/60	1969/70	1950/51	1955/60	1969/70	1950/51	1955/60	1969/70	1950/51	1955/60	1969/70	1950/51	1955/60	1969/70	1950/51	1955/60	1969/70	1950/51	1955/60	1969/70	1950/51	1955/60	1969/70	1950/51	1955/60	1969/70
HILL	11.29	12.21	12.22	9.03	9.16	11.14	300.18	382.41	449.36																					
Western	5.45	9.02	9.10	9.30	10.78	15.39	306.45	361.47	469.21																					
Central	5.45	7.94	8.10	9.01	8.76	11.43	275.18	315.35	399.29																					
P. Khand	6.02	7.35	7.15	7.35	9.94	11.01	217.00	253.78	306.54																					
Eastern	4.70	6.51	7.20	8.08	7.98	11.90	274.64	335.75	460.72																					
State	4.99	7.27	8.04	8.78	9.59	13.30	293.11	349.24	458.03																					

Source : Bulletin of Agricultural Statistics - Taking three yearly moving average - Directorate of Agriculture, Uttar Pradesh.

The figures contained in this table give a broad picture of trends in agricultural productivity in Uttar Pradesh. Generally the yields per acre have increased particularly in the case of wheat in the western region, and the State average as a whole. The average yields in rice have not shown any marked improvement during 1960s which shows that the Green Revolution has not yet affected the productivity of rice crop in Uttar Pradesh. There has been some improvement in the sugarcane yields but looking to the all India average there is much scope for improvement.

To study the regional disparity in productivity we may build up the following indices (Table 5) for the three crops as studied above:

Regional Disparity of Some Selected Crops In Uttar Pradesh During Two Decade of Planning.

Regions	1958-59 to 1960-61			1968-69 to 1970-71		
	Rice	Wheat	Sugarcane	Rice	Wheat	Sugarcane
Hill	177.07	100.23	106.02	152.00	86.00	98.00
Western	124.53	121.18	103.76	113.00	116.00	104.00
Central	108.27	94.68	95.65	102.00	86.00	88.00
P. Khand	93.48	104.19	70.87	89.00	84.00	67.00
Eastern	88.53	84.82	92.79	92.00	90.00	102.00
State	100.00	100.00	100.00	100.00	100.00	100.00

Table 5 shows that the dispersion in the values of productivity in the crops under study has to some extent, reduced during the second period which gives the moving average productivity figures for the period 1968-69 to 1970-71. However, no sizeable impact in the yields of both wheat and rice is visible in the erstwhile backward pockets of the State which has an adverse effect on the per capita incomes and general economic development of these regions. The highest place in terms of productivity per acre is occupied by Hill region for rice and by western region for wheat and sugarcane.

Probably the most serious shortfall in regional productivity seems to be that of Eastern region in the production of rice. With a population of about 38% and rice production of about 45-50% of the State total in 1971 a low productivity per acre of this staple crop (now remunerative too) has serious repercussions for food availability and rate of growth for Uttar Pradesh. Rice is a rainfed crop and needs more irrigation facilities than other Kharif crops. In the eastern region of Uttar Pradesh, due to lack of proper water management (particularly rain water and flood control) there had been acute paucity of assured irrigation in the earlier planning period. According to the Joint-Study Team²³, while

²³Planning Commission, the Joint Study Team for Eastern Uttar Pradesh.

in the state as a whole more than half the irrigated area was served by canals and tube-wells, it accounted for only 10% in Azamgarh and 7.2% in Deoria. Realising that there was not much scope for the development of major and medium irrigation works in the four districts under survey the study team recommended that 75% per cent of the cultivated area should be brought under irrigation by laying increasing stress on the construction of private minor irrigation works. By the end of March 1968, 58.6 per cent of the total cultivated area in these districts had been covered by irrigation facilities of one category or another.²⁴ But from Table 5 and more recent data,²⁵ of regional agricultural Statistics of Uttar Pradesh clearly prove a marked lacuna in productivity of rice crop in the eastern districts of Uttar Pradesh.

In fact we are practically reaching the limits of extensive cultivation and the scope that remains for increasing output by increasing the area under cultivation is only marginal. The main brunt of the task of increasing agricultural production and achieving the plan targets in future is bound to fall, therefore, on increased productivity. While one of the basic objectives of planned

²⁴Planning and Development in Uttar Pradesh, Govt. of Uttar Pradesh, Planning Department, 1968 pp. 142-43.

²⁵Uttar Pradesh Bulletin of Agricultural Statistics 1971-72, p. 63.

social and economic development in India has been balanced regional growth, we find that the development plans have benefited only certain regions and strata of society and have not been instrumental in the transformation of the whole State of Uttar Pradesh.

Planning For Viable Units Of Production :

Agricultural planning in Uttar Pradesh needs a fundamental re-orientation to get optimum utilization of its natural resources and achieve simultaneously a faster rate of economic growth. In this process of re-structuring of the agricultural economy of Uttar Pradesh, while on the one hand a large mass of marginal and small farmers have to be made viable units of production, on the other-hand, the intensity of cultivation has to be sufficiently increased, particularly in the backward regions of the State. In a sense both these objectives of our planned approach to agriculture are interdependent. As many as 66.65 per cent of the holdings in Uttar Pradesh are of the size of 1 hectare or less which is palpably uneconomic.²⁶ In Eastern Uttar Pradesh the pressure on land is much more higher and inequalities of land ownership and

²⁶Census of Holdings 1971. About 91% of holdings below 3 hectares cover about 56% of cultivated area. (Annexure²/10).

operation are even sharper. One-fifth of the rural households have no land of their own and those having holdings of less than an acre constitute 40 per cent of all the rural households but own only 2.5 per cent of the cultivated area.²⁷ Without a collective or co-operative re-organisation of the agrarian economy of Uttar Pradesh, all measures intended to increase cropping intensity will not affect a large section of the population in the State. What is even more harmful to agricultural productivity is that evil practices of share-cropping and sub-tenancy are prevalent on a large scale. It is worthwhile to reproduce in this context the views of P. S. Appu:

"If the spurt in agricultural production witnessed in the western part of the Indo-Gangetic plain spreads to the eastern part and the deltaic regions, the country would have a food surplus. It is no accident that the home of the so-called "green revolution" is the Punjab - Haryana region, where the bulk of the land is cultivated by owner-farmers and where 80% of the ground water is being exploited."²⁸

²⁷Kripa Shankar : Economic Growth of Eastern Uttar Pradesh, Patrika Jan. 1, 1973.

²⁸P. S. Appu : The Case for Land Reforms-- Dismantling a semi-feudal system, The Statesman, July 31, 1973.


The occupational pattern in Uttar Pradesh is heavily tilted towards agriculture where about 75% of the work force is engaged (about 82% in Eastern region). In spite of development programmes envisaged in the Fourth Plan the economy is not in a position to absorb the additional labour force which is of the order of one million per year.²⁹ The possible solution to the problem of growing unemployment is to link agriculture and industry together. The three most important factors which can provide this link, between agriculture and industry and between the town and the village, are cheap power, a network of roads and technical skills.³⁰ Power, available in requisite amount and at reasonable cost, holds the key to all progress in agriculture and industry. Against the per capita consumption of about 89 units in India (which is very low in comparison to certain foreign countries like U. S. A., U. K., U. S. S. R. and France), Uttar Pradesh's per capita consumption is still worse, being barely 59 units.³¹ The country in general and backward States in particular have to take major steps in the next decade to achieve a reasonable measure of per capita consumption

²⁹Fourth Five Year Plan, Govt. of U. P., Planning Department (Annual Plan 1972-73), p. 4.

³⁰Fourth Five Year Plan, Working Papers, Govt. of U.P., Planning Department, p. 247, Aug. 1964.

³¹Uttar Pradesh Fifth Five Year Plan Report - p. 165.

of electricity, to be able even to bring itself at par with at least some of the less developed countries of the world.

The realization of a great part of agricultural potential is possible by the use of such resources as have low opportunity cost. In this regard it is relevant to suggest that utilising the surface water by impounding may be profitably used for kharif crops and it will also at the same time solve the recurring problem of floods and droughts which sometimes occur simultaneously in Uttar Pradesh, causing much damage to standing crops. Recent reports suggest that China has been able to keep agricultural production increasing almost uninterruptedly for the last 10-12 years and they have widely resorted to labour intensive techniques and hand watering of standing crops.³² The water distribution from State tube-wells and canals is defective and there are breaches at thousands of points. The regional cropping pattern and demand for power, water and fertilizers is different. Even so the problem defies geographical boundaries. There are big farmers in the backward areas and small cultivators in the rich areas. The poor farmer in western Uttar Pradesh is by and large, prefers a low investment pattern and ^{the} 

³² Neville Maxwell : Chinese Agriculture, Sunday Times, London.

big farmer in eastern Uttar Pradesh of Bundelkhand a high intensity pattern of development, though this strategy may not be suitable for the area. A critique rightly suggests that since the Government cannot provide all the water and fertilisers necessary for intensive agriculture all over the State for several decades, it has to build up a scheme of regional planning and priorities to maximise the production potential and at the same time avoid concentration of economic power with certain sections of farm population or regions of the State.³³

Pole Of Agriculture In The Future Economic Development Of Uttar Pradesh

Bearing in mind the above trends in agricultural productivity in Uttar Pradesh and its various regional constraints and socio-economic indicators of relative growth it may be worthwhile to indicate the future lines of development, particularly some regional patterns of farm planning. The western Uttar Pradesh may build its agricultural economy on the lines of the neighbouring States of Haryana and Punjab and maturing the incipient impact of Green Revolution in the western Districts of the State, particularly the wheat producing tract of Meerut and Agra divisions. The cropping pattern suitable for

³³M. P. Lal : Differences over Uttar Pradesh's Farm Priorities - The Statesman, Jan. 22, 1975.

this region is wheat, sugarcane and potato. Besides agriculture, a net work of agro-industries should flourish in this area in the form of industrial estates or as single entrepreneurs. Charan Singh comparing food production per acre in the eastern and western regions of Uttar Pradesh comments : "there are more towns and cities in the west which produce food surplus to the needs of the farmers, than in the east which has no food surplus. People moving to the non-agricultural jobs in the cities and towns must have food. When there is scarcity of food, the Law of Diminishing Returns will compel them to remain on land."³⁴

The Eastern region of Uttar Pradesh has comparatively smaller holdings than the western region. The concentration of efforts here should be on the small farmer (having holding 1-3 hectares) and co-operativising the very tiny and fragmentary, holdings. The small farmers are by themselves not in a position to take advantage of modern scientific techniques. During the fourth Plan the Government of India had sanctioned 46 schemes of about Rs. 1.50 crores each to help the small farmers. Out of these, four projects have been located in this State, though the State was entitled to a much larger share if

³⁴Charan Singh : India's Poverty and Its Solution. - p, 372.

the proportion of small farmers in the State to total small farmers in the country is taken into account.³⁵ The scheme was launched in the four districts of Fatehpur, Budaun, Rae Bareilly and Pratapgarh during 1970-71. By the end of 1971-72, 2,891 masonry wells, 890 diesel pumping sets and 4,341 tube-wells were constructed or installed in these districts. Including a marginal farmers and agricultural labourers (MFAL) centre at Pallia, this seems too little effort for the growth of the agricultural economy of Eastern Uttar Pradesh.

The economic stalemate of the region needs an area based district planning approach on the lines of Phulpur in Allahabad district. The 'Growth Centre' will be located on the basis of certain existing infrastructure, but it will be further strengthened by additional facilities, resources, service centres and departmental units, so that a two-way traffic is set in operation between the village communities in the hinterland and the growth centre.³⁶ One effect of this increased economic activity will be the creation of employment opportunities in the primary, secondary and tertiary sectors of the local economy. This area development schemes will, however, not succeed unless we develop somehow the

³⁵ Govt. of U.P. Planning Deptt., Fourth Five Year Plan : Draft Annual Plan 1972-73 - p. 8.

³⁶ For details -- Annexure - Phulpur Project in Brief. 3.11

"community" behind these schemes on the lines of communes in China even if by a democratic and gradual process. This necessitates effective legislation on the minimal size of agricultural holdings on the one hand and also emphasis on the co-operative way of life in this backward region on the other.

The Pundelkhand region of the State has a peculiar topography and suffers from low agricultural yields. This area lacks, in particular, irrigation and transport facilities. Recently a proposal has been made to launch a 5 crore project to build an Australian style milk plan for Pundelkhand. Sponsored jointly by a Bombay industrialist, the Uttar Pradesh Government and the Indian Grassland and Fodder Research Institute of the Government of India at Jhansi, the scheme will popularize high yielding dryland fodders that would convert the vast barren tracts of Pundelkhand into the richest milk-producing area of the State. The merit of the new scheme is that it would put to use the vast uncultivated land, the large idle manpower and the big population of unproductive cattle in which the region abounds. Irrigation department has prepared an ambitious basin plan for developing new irrigation resources in the Pundelkhand region that may increase the water supply from 22% to around 30% or more of the cropped area. But the future of Pundelkhand does not seem

to lie in concentrating on agriculture but on irrigated and high quality fruit, fodder and fuel plantations.³⁷

It has been also suggested that looking to immense success of Pantnagar Farm and University in the Tarai region, similar experimental and research farms may also be attempted in a few more regions of the State. In Pantnagar Farm yields of 50 mds. of wheat per acre have been produced on thousands of acres of land which gives a new dimension of agricultural productivity in Uttar Pradesh. Besides, this Farm also produces bulk of the seed requirements of the State and is a source of dissemination of knowledge and research to the farmer community at large. There is urgent need for research to increase productivity of rice, sugarcane and potato crops in Uttar Pradesh and places like Deoria, Faupur and Faizabad may be chosen to start a nucleus of macro-approach to farm planning for these crops whose productivity is much low as compared to other States in India.

Although there has been substantial improvement in agricultural production during the last 7-8 years, there is still vast scope of increasing agricultural production in Uttar Pradesh in view of a low base of productivity on the one hand and its good soils, water

³⁷Report, Statesman, Jan. 12, 1975.

resources and availability of technical know-how on the other. If the available water resources are judiciously tapped to increase the present percentage of irrigated area from 40% to 50% as suggested in the fifth five year plan it would enable the State to have a crop-intensity of 150 per cent against the existing 130 per cent.³⁸ Even though, the per capita consumption of chemical fertilisers in Uttar Pradesh is lower than that in some of the other States of the Indian Union, it is higher than that in Haryana, a neighbouring State. Looking to recent progressive State policies in regard to harnessing of water and power resources of the State, it can be expected that ~~the~~ by the end of the fifth plan the per unit production of cereal crops in Uttar Pradesh will catch up with the levels in Haryana and Punjab, particularly in the western and Central Zones of Uttar Pradesh. The other regions of the State need a more intensive and diversified agriculture and a bold plan of industrialisation to improve the land man ratio and thus to have higher farm productivity and incomes.

³⁸Report, Fifth Five Year Plan - p. 31.

CHAPTER IV

LAND REFORMS AND THE STRUCTURE OF HOLDINGS IN UTTAR PRADESH

In the history of most of the developing societies, the break-through from agricultural stagnation has been associated with the reorganisation of the traditional land system and with the dissociation of land and labour from non-economic constraints of the traditional society. There are several causes which account for this low productivity of agriculture in under-developed countries: poor fertility of soil and water availability, backward techniques, lack of capital equipment and excessive pressure of population on land. But that does not exhaust the list. One of the most important and basic factors responsible for this situation is the unfavourable agrarian structure in these countries, which is largely responsible for agricultural stagnation and low levels of living. Doreen Warriner an eminent critic of land problems observes:

"Though the modern land systems vary somewhat in the degree of equality of ownership, they share a common origin in that they have emerged by processes of revolution and evolution from feudal systems in the past and the countries with higher levels of productivity are those which emerged earlier"¹

¹Doreen Warriner : Land Reform in Principle and Practice - p. 387.

Land Reforms And Economic Development :

How the land is held, managed and the economic organisation of agriculture is central to the problem of low productivity in the agriculture of underdeveloped economies of Asia and Africa. Besides correcting sharp inequalities in agricultural holdings size and incomes the land tenure reform also wants a much more productive agriculture as a base for national economic development.² No straight answer can be given to the question as to whether land tenure reform or redistributive policies lead to technological progress in agriculture. Secondly, looking to the vast problem of under-employment in the rural areas does an egalitarian system of land distribution in the developing countries lead to increase in the labour intensity and thus ultimately help higher productivity in the agricultural sector? These two problems may be carefully examined with the help of available reliable statistics and facts before we come to discuss the land system of Uttar Pradesh in a meaningful way. For Uttar Pradesh depicts in a typical way the adverse land man - ratio and a much more higher percentage of agricultural workers at present than can be profitably utilised in the primary production. Even more disturbing feature is the tendency of polarisation in the resource ownership in the wake of

²Erven J. Long : The economic basis of land reform in underdeveloped economies - (Tara Shukla, Ed. p. 282).

the new technology which has, on the one hand, separated the land possession from the working class and on the other hand not helped to channelise the "agricultural surpluses" into the process of capital formation either in agriculture or in improving the rural infrastructure and the industrialisation of Uttar Pradesh.

The potential effects of land reform and the other measures associated with it in raising the levels of living would seem to be great for rural communities. After the communist take - over in China (Mainland) "land reform was a most powerful engine of social change as well as of economic and technical progress."³ Efforts have been more successful in industrialized countries, such as Czechoslovakia, Japan and Sweden. It is reported that when over 300,000 farmers in Yugoslavia received land "..... it was felt that the new government was really a government of the people, and that the problems of the peasantry had become the problems of the whole community".⁴ In some countries of Asia, Latin America and the Middle East, without proper technical advice, inputs particularly credit & the necessary social organisation at the village level to make effective and fair use of services provided by the government, land reform policies

³Adler, S., The Chinese Economy, 1957, p. 27.

⁴"Agrarian Reform in Yugoslavia", The Agricultural Co-operative System in Yugoslavia, p. 115.

have not fulfilled their objectives. In Bolivia and Iran the post-reform agricultural production had declined. The Indian ideal of co-operative village management as visualised in the Second Plan is far from being realised while Israel has demonstrated the efficiency of agricultural production through its collectives (Kibbutz) and co-operatives (moshav).

Recent trends in agricultural planning emphasise "integral land reforms" to achieve the goal of higher growth rates in agriculture and improvement in rural welfare. This, however involves State assistance on a large scale, as attempted through community development and co-operatives in India. Above all the process requires an inter-sectoral developmental planning taking into account the probable food surpluses and prices, flow of population to the towns and increasing the intensity of cultivation on every acre of land, which the re-distribution of land implies. The U. N. Report on Progress in Land Reform (Fourth Report) points out :

"Direct social investments as part of "integral land reform policies" are probably beyond the means of countries where agriculture is still the overwhelmingly predominant occupation. In such countries, long-term economic growth may depend on savings within the agricultural sector being invested in industry. The possibilities of this are probably best when the

land reform results in the creation of large common - land - use farm units, provided that the level of enforced saving can be made politically acceptable."⁵

The intimate relationship between productivity and the existing pattern of land holding is best gauged by what Dr. Myrdal, an economist of international repute, has termed the "labour intensive" element.⁶ The poor productivity of Indian agriculture is primarily accounted for by the lack of "labour intensiveness" without which improved technology and better inputs have failed to increase production to the desired level. Over 60 per cent of the country's cropped area is owned by only 15 per cent of the so-called farmers, quite a large section of them being absentee landlords, who, instead of engaging themselves in direct cultivation, leave the actual work to share-croppers composed of small-holders and landless labour. These people required to surrender to the owner a big share of the crop, normally half, can evidently have little initiative and interest to do intensive work on the land. In one part of Java, for instance, there is a

⁵United Nations : Progress in Land Reform Fourth Report, 1966, pp. 162-163.

⁶Gunnar Myrdal : Priorities in the Development Efforts of Under-developed countries and their Trade and Financial relations with rich countries (Rome, F.A.O., March, 1964).

variety of tenancy arrangements; the landlord may provide only the cost of seed and (until they were abolished) pay the taxes; he may take over after the tenant has ploughed, prepared the field and planted it or he may take over at an even later stage. However, even if the tenant does all the work and provides everything except seed, he does not normally receive more than a third of the crop and may get as little as a fifth.⁷

There clearly have been cases in history where the private investment of their profits in industry by landlords or by worker-employing farmers have made a substantial contribution to industrial development (e.g. U. K. and Japan). But the fact that in a very great number of countries today, landlords and the owners of big estates simply do not act in this growth - stimulating way is one of the major argument in favour of land redistribution as a precondition for economic development.⁸ A recent study in Chile of a sample of large landowners, whose average disposable income was almost \$ US 50,000, found that 80% of their income went into immediate consumption, most of it of a luxury kind by any standards.⁹

⁷J. M. Van-der Kroef, "Land Tenure and Social Structure in Rural Java", *Rural Sociology*, Vol. 25, No. (IV) December 1960, pp. 422-423.

⁸U. N. - op. cit., p. 158.

⁹Marvin J. Sternberg, "Chilean Land Tenure and Land Reform" (University of Berkeley), 1962.

The question remains whether land redistribution which creates a small family farm system would really improve matters as far as the problem of resource mobilization is concerned. It was easier for the British Government to come into agreement with a few landlords for revenue collection rather than with a large number of family farmers. However, a political/dominant farm lobby are most unlikely to agree to tax themselves as we find it today in India. When agriculture is organized in collectives or joint co-operative farms as in Russia, China, Yugoslavia and Israel, the problems of enforcing savings in agriculture for industrial investment are significantly reduced. It was only after collectivization that soviet agriculture was able to contribute largely to the financing of the first five year plan, and even in recent years, when the industrial sector has become large enough to generate its own investment funds, the Volkhoz have been paying some 12 per cent of net value added in the form of taxes, as well as financing 85 per cent of their own investments.¹⁰ In India we need what may be called a "rural co-operative socialism"¹¹ if we want more purposeful developmental planning.

¹⁰ Land Reforms op. cit, - p. 159.

¹¹ Neale: Economic Change in Rural India, p. 211.

Impact Of Land Reforms In Uttar Pradesh :

Before the abolition of Zamindari system there were as many as forty different types of land tenures prevalent in Uttar Pradesh. The land was owned and held by the proprietors while the tenants generally cultivated it. These proprietors included Zamindars as well as taluqdars and they acted mainly as intermediaries between the state and the actual tiller of the soil. Holdings were let out mostly on a cash rental basis although the system of share - cropping was also in vogue. Rents had continuously increased as pressure on land increased and rack-renting had become such a marked evil of the system that the government had to adopt legislation several times particularly since the beginning of the present century to protect the tenants against enhancement of rents and ejectments.¹²

Although all agricultural land was owned and held by the Zamindars, the area under their direct cultivation or occupation was small (about 20%). The rest, i.e., about 80 per cent of the total was occupied by tenants among whom the largest occupation was that of the hereditary tenants (came into existence after the passing of Uttar Pradesh Tenancy Act 1939) who occupied more than

¹² Singh & Misra : A study of Land Reforms in Uttar Pradesh, p. 21.

two fifths of the total agricultural land. The occupancy tenants occupied another 28 per cent. There two classes of tenants whose rights were permanent and hereditary occupied among themselves 70 per cent of the total area in agricultural holdings in the State.¹³ That the land system prevalent in Uttar Pradesh has retarded agricultural efficiency and made it impossible to effect technological improvements in production was conceded by agricultural experts and economists.¹⁴ The peasant will not work to his full capacity nor will he invest his resources in improving his land, unless he is certain that he will enjoy the fruits of his labour and the benefits accruing from his investment. The Zamindari Abolition Committee recommended the abolition of all intermediaries. It was of the opinion :

"that land can no longer be allowed to be treated merely as a source of income; that it is for use, and therefore, it should be regarded as a definite and limited means for supplying labour to a category of citizens whose occupation in life is the tilling of the soil."¹⁵

¹³Worked out from the Annual Uttar Pradesh Land Revenue Administration Report 1951-52 (Annexure 41).

¹⁴Report of U.P. Zamindari Abolition Committee, p. 336.

¹⁵Report of U. P. Zamindari Abolition Committee, p. 340.

The Zamindari Abolition Act (came into force in July 1957) was a landmark in the history of the State. It brought an end to the ruinous and exotic system of Zamindari, gave security of tenure to the cultivators and gave no right, unlike other States, to the ex-landlords to resume tenants' holdings in the name of personal cultivation.¹⁶ The Zamindari Abolition Act put an end to the large number of tenancies and in its place brought about three types of tenures viz., (i) Bhumidhari (ii) Sirdari and (iii) Asami.

The vast body of cultivators consisting of tenants, sub-tenants and occupiers of land without consent have been declared as sirdars of the land under their cultivating possession. Sirdari interest is permanent and heritable but not transferable. To overcome financial and legal difficulties bhumidhari rights were granted to those tenants who made voluntary contributions of ten times of their rent. They will be entitled to transferable rights in their holdings and will pay as land revenue fifty per cent of their existing rent.¹⁷ The Zamindars were given bhumidhari right in their home-farmed land (Sir and Khudkasht). The asami rights were conferred on certain tenants who had so far a temporary and unstable right

¹⁶ Kripa Shankar, Econ. Development of U.P. p. 40.

¹⁷ Govt. of Uttar Pradesh, Gazette Extraordinary June 10, 1949.

upon the holdings they cultivated. The asami's rights are heritable but not permanent or transferable.

Structure Of Holdings :

No agricultural policy can get very far without coming to grips with the hard realities of the socio-economic structure in the rural areas. The Report of the Zamindari Abolition Committee itself referred to the wide disparity in holdings and observed, "considering that over 81 per cent of the cultivators possess holdings below 5 acres and over 67 per cent possess holdings below 3 acres, there appears to be a strong case for redistribution of land".¹⁸ The first serious attempt at limiting the size of land holdings in Uttar Pradesh was made in 1960 when the Uttar Pradesh Imposition of Ceiling on Land Holdings Act, 1960, was passed. The socio-economic pressures in the country particularly in the over-populated areas with huge landless population and rural poverty has been the lever which motivated the Chief Minister's Conference held in November 1969 to suggest that in the light of recent technological developments in agriculture and social requirements, the level of ceiling, transfers and exemptions required careful review. They were fixed at a time when productivity and prices were low. The advent of the

¹⁸ Report of U.P. Zamindari Abolition Committee, Vol. II (Annexure 4/2).

new technology and high support prices, together with the continuing immunity of agricultural income from taxation have materially altered the situation. The Uttar Pradesh Imposition of Ceiling on Land Holdings (Amendment) Act, 1972 was drafted according to these new guidelines drastically lowering the ceiling from 40 acres of fair quality land to 18 acres (7.30 hectares) of irrigated land throughout Uttar Pradesh.¹⁹

Gap Between Object and Achievement :

The major land legislations that have been introduced in Uttar Pradesh in recent years have been undertaken with a view to increase agricultural output and productivity and an egalitarian distribution of land to meet the recent demand for land ownership, not only by landless but also a new class of cultivators whose real interest is not in agriculture itself. The yawning gap between the proclaimed goal of equal distribution and what has been achieved so far over a period of a quarter of a century can be very well seen from the following table :

¹⁹For details of the New Act, See Annexure 4/3. The Uttar Pradesh Imposition of Ceiling on Land Holdings Rules, 1961 as amended by Uttar Pradesh Act No. XVIII of 1973.

Table No. 1

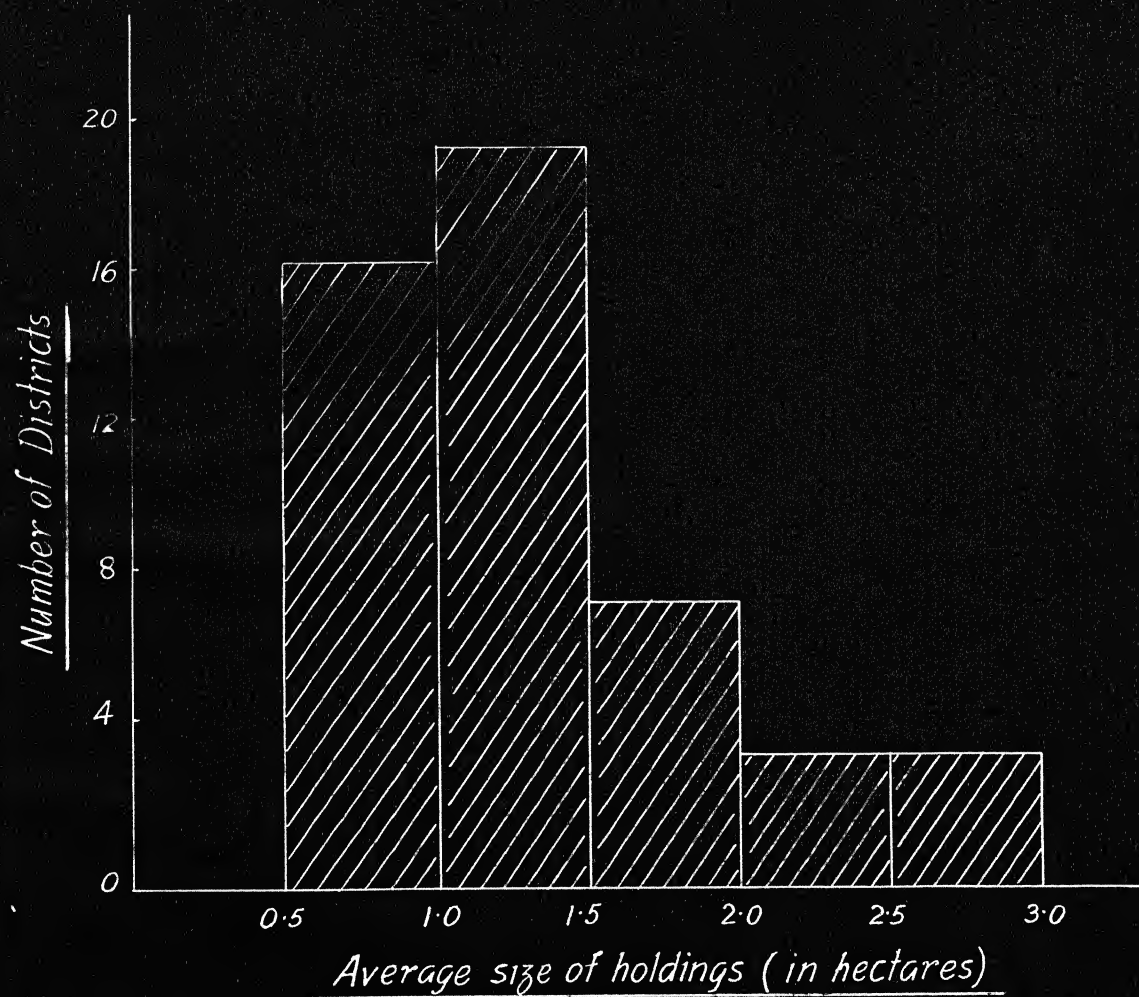
Percentage Distribution of Number of House-Holds/Holdings
And Area Held By Them In Uttar Pradesh in 1960-61 And
1970-71

Size of Holding (Hectares)	1960-61		1970-71	
	Percentage of No. of House-holds	Area	Percentage of No. of House-holds	Area
Upto 1	60.00	12.80	66.65	20.64
1 - 2	19.24	20.33	17.09	20.51
2 - 3	9.04	16.30	7.19	14.82
3 - 4	4.57	11.57	3.52	10.30
4 - 5	2.47	8.09	1.98	7.51
5 - 10	3.66	18.50	2.83	16.08
10 and above	1.02	12.41	0.74	10.14
All Sizes	100.00	100.00	100.00	100.00

Source : 1960-61 Data is from W.S.S. 16th Round, and for 1970-71 Agriculture Census 1970-71.

It is apparent from figures in Table No. 1 that the structure of holdings and order of distribution of land have undergone only marginal changes. The total area held by small cultivators of 2 hectares and below has gone up from about 33 per cent to about 41 per cent. On the other hand, the proportion of households having 7.5 acres

Distribution of Districts According to Average size of holdings in U.P.



or more was less than one-seventh of the total, but they commanded more than half the area in 1960-61; the respective percentages of these middle and large landholdings in 1970-71 are about 10% (1/10th) and 44%. The average size of holding which was 1.41 hectares in 1960-61 has come down to 1.16 hectares in 1970-71. In 28 districts of Uttar Pradesh the average is less than the State average which are mostly in the Varanasi, Uttarakhand and Gorakhpur divisions. It has also been estimated elsewhere²⁰, that inequality in the distribution of land still prevails throughout the State, though it is not marked equally in all the divisions, the concentration of land being most marked in the Varanasi division.

What Is An Economic Holding?

An appraisal of the economic condition of the peasantry depends inter alia, on the crucial question of the size of holdings; In 1931 the Agrarian Distress Enquiry Committee, appointed by the Uttar Pradesh Provincial Congress, came out with 5 Acres as the average holding in Uttar Pradesh. But this total includes the large holdings in Fundelkhand which extend to about 12 acres, although in reality a 12 acre holding in Fundelkhand is worth no more than a 6 acre holding anywhere else in Uttar Pradesh. To

²⁰ Dr. Shridhar Misra : Land Reforms and the Structure of Holdings in Uttar Pradesh: The Indian Journal of Economics, Vol. LIV, Part IV; April, 1974. (Annexure 4.6 for Details)

clarify the issue it may be useful to quote certain extracts from the Committee:

"There are again marked differences in the size of holdings in different parts of Uttar Pradesh. In the western tract comprising Meerut, Muzaffarnagar and a few other districts the area of an average holding exceeds 8 and 10 acres. But what really matters is the area of the holding of the ordinary cultivator who represents the bulk of the population. While it is difficult to point out the exact number of holdings of different sizes, the fact is unassailable and is borne out by what we have said above that by far the large majority of holdings in the province must range between 2½ and 4 acres."²¹

Taking 10 acres as the economic unit of cultivation for the province as a whole, the Zamindari Abolition Committee came to the conclusion that holdings of 9½ per cent of the cultivators in the province were uneconomic.²² The concept of economic holding has been discussed theoretically at several places²³ but for evaluating the economic condition of the cultivator in an objective manner we find

²¹Agrarian Distress in the United Provinces, 1931, p. 30.

²²Report of Uttar Pradesh Zamindari Abolition Committee, p. 24.

²³Keating, Mann & Others ^{Ibid.} Vol. I, p. 19.

the definition of the Agrarian Reforms Committee of the Congress as most appropriate for our purpose. The Committee which really formed the basis for all future planning in agriculture came to the conclusion that the existing pattern of agrarian economy is so complex and the problems which it has to face are so variegated that no single uniform method of land utilisation can meet the requirements of the situation.²⁴ The Committee had evolved, from the operational aspect three norms of holdings, namely, 'economic', 'basic', and 'optimum'. An economic holding was defined as one which affords a reasonable standard of living to the cultivator and provides full employment to the family of a normal size and at least for a pair of bullocks. Taking three times the economic holding as the optimum size, the Committee recommended the land ceilings at the optimum size.

Our investigation of 12 sample villages in different soil-climatic conditions in Allahabad district gave us first hand knowledge about relative economic viability of the small, medium and large farmers. The Planning Commission has estimated that Rs. 40 per month at 1972-73 prices may be regarded as a norm for per capita minimum requirements of consumption.²⁵ It has advocated

²⁴ Agrarian Reforms Committee Report, p. 8.

²⁵ Fifth Five Year Plan - Draft. Vol. I, p. 8. Govt. of India.

that to improve the per capita consumption of the bottom 30 per cent from the present Rs. 25 per month at (1972-73) Prices) to Rs. 40/- per month both institutional reform and fiscal policies must be oriented alongside increased productivity. It came to our notice that in the Gangapur region of Allahabad District 5 - 7.5 Acres of land could safely be regarded as an economic holding generating a surplus income of Rs. 2,500-3000 after meeting the cost of cultivation. The region contains 48% not irrigated area. (in the district)
The number of private tube-wells has gone up from 1327 in 1968 to 4700 in 1972,²⁶ mostly in the Gangapur region. The index of improved economic conditions is supported by the fact that this district now stands in second place in the production of potato crop in the whole of the plain districts, of Uttar Pradesh.²⁷ At the other extreme the trans-Jamuna tract showed conditions of backward agricultural production and the economic holding in the tehsil of Meja (a part of the Fundelkhand Area) could lie anywhere from 10-12 Acres of normal cropping conditions of that region.²⁸ However, the physical acreage is admittedly an unsatisfactory measure of the size of a farm and should somehow involve the consideration of soil productivity.

²⁶ Report of Bank of Paroda, Allahabad District

²⁷ Allahabad District - Fifth Five Year Plan, Draft.

²⁸ For Farm Economy Analysis See the Chapter IX.

Land Reforms And Agricultural Productivity :

The conception of a break with the past can be a powerful stimulus in national life. The great national enthusiasm of the post - war years has put an end to colonial rule in South-east Asia, but no country in the area has as yet been able to achieve full control of its economic growth. In Asian land systems, large estates are not large producing units. Land reform in such systems simply means the transfer of ownership from the land owner to the cultivator of the existing small holding. This is what happened in the economy of Uttar Pradesh also, which has a peculiarly 'river - valley' economy with heavy population pressures and excessive fragmentation in the whole of Doab area, particularly the eastern plains. Higher productivity depends upon continuous reinvestments which is possible if "integral land reforms"²⁹ take place, which implies provision of credit, extension and marketing services and the formation of co-operatives to aid in the improvement of productivity.

It has been recently estimated by the Planning Commission that the revised land ceiling laws will, when fully implemented, yield 4.06 million acres for distribution among the landless. According to the official circles, the area declared surplus in Uttar Pradesh till 1972

²⁹Progress in Land Reform, United Nations (Foyah Richard)
p. 152.

through ceilings was 2.5 lakh hectares. Of this, the government took possession of 2.1 lakh hectares and two lakh hectares were distributed. It is on record that land ceiling laws of the 1950s and 1960s were largely evaded by abusing the exemptions granted to Orchards, private, religious and charitable trusts and specialized, cooperative and efficiently managed farms. There were besides mala fide and back-dated land transfers with the connivance of land reform officials, That the distribution of the surplus land has been highly defective is borne out by the concern of the Uttar Pradesh Government which has on January 14, 1975 appointed a 16 men Uttar Pradesh Land Management Committee headed by the Chief Minister and Sri R. K. Patil an eminent Sarvodaya leader as working Vice-president. The Committee whose term is for one year has been constituted to look after distribution of land rendered surplus or vested in Gnan sabhas as a result of enforcement of Uttar Pradesh Zamindari Abolition and Land Reforms Act, 1950, Uttar Pradesh Consolidation of Holdings Act, 1953 and Uttar Pradesh Imposition of Ceilings on Land Holdings Act, 1960 among weaker sections of society. It would have been in the fitness of things if the 1972 Ceiling Act was also implemented quickly and the surplus land accrued therefrom also distributed under the supervision of this Committee, which could have some sizeable impact on the vast problem of landless and

uneconomic holdings in Uttar Pradesh. One of the chief leakages in the process of higher savings and capital formation is subletting and share-cropping. A comprehensive study of the land reforms in Uttar Pradesh found that 8.67 per cent of the cultivated area was operated by share-croppers.³⁰ The report of the Fifth Five Year Plan points out :-

"An important characteristic of Indian agriculture, especially in the Eastern parts of the country is the high level of indebtedness of share - croppers and tenants. While considered abstractly, indebtedness does not necessarily represent an undesirable state of affairs, coupled with extremely low standards of living and primitive conditions of production, it is suggestive of a certain mode of cultivation which inhibits productivity of land and labour."³¹

This system of farming has a harmful effect on the living conditions and saving potential of the real workers on land. If land had been redistributed in such a manner that only that much of land could be owned by a person to which he could devote full attention, then it could have increased the labour intensity in cultivation and more investments in the agricultural sector. Abnormal increase

³⁰ B. Singh & Misra : A Study of Land Reform in Uttar Pradesh, p. 161. N.S.S. 16th round and other studies also reveal that about 10% of the cultivated area was share-cropped.

³¹ Draft Fifth Five Year Plan 1974-79, Vol. I, p. 23.

in land values in the wake of the new input revolution in agriculture has led new non-agricultural interests from urban areas or within the village to purchase land.

Many continue to be farmers although they do not put any manual labour to the cultivation of their holdings nor do they invest the share got from the tenants to improvement in land or irrigation facilities. This system of farming is a black spot on the whole reform legislation which must get as serious attention of the planners as the re-distribution of land through lower ceilings. Thus the ground for a better structure of farming will be prepared in Uttar Pradesh and it will raise the income of cultivators at the bottom who form the big base of the predominantly agricultural working force in this State.

Regional Trends :

Since the scope for the extension of cultivation in Uttar Pradesh (as most other parts of the country) is limited, the increasing demand for agricultural produce is met by intensification of agricultural operations. The intensity of cultivation which is also an indicator of agricultural advancement shows the following regional trend in Uttar Pradesh:

Table No. 2
Intensity Of Cultivation

Divisions	1950-51	1971-72
Kumaon and Uttarakhand	112.73	--
Meerut	133.65	150.18
Agra	119.74	138.74
Pundelkhand	117.23	133.76
Lucknow	122.22	131.98
Jhansi	106.32	110.32
Allahabad	117.64	128.37
Varanasi	126.60	132.03
Corakhpur	130.67	135.92
Faizabad	134.10	133.03

Source : Calculations are based on data
compiled from Pulletins of Agricultural
Statistics for Uttar Pradesh.

It will be seen from Table No. 2 that the intensity of cultivation is highest (150.18) in Meerut Division and lowest (110.32) in Pundelkhand Division. The corresponding figure for the whole State is 133.03. The eastern districts have not shown any marked improvement as compared to the districts of Meerut and Agra divisions.

In the district of Allahabad the crop intensity has picked up from 119 in 1950-51 to 126 in 1960-61 and a further small upward shift to 130.6 in 1971-72. This shows some basic difference between the rural economy of Allahabad district from the Eastern Economic Division of Uttar Pradesh of which it happens to be a part in the present classification. However, there are more potentialities of a rise in this district looking to the various schemes of utilising underground and surface water resources in the coming years.

Land is the most important natural resource of the State. The solution of the problem of meeting requirements of growing population with a fixed land surface lies in the optimum utilization of land in all possible ways. Comparatively larger percentage of area is covered by holdings below 5 acres in the Eastern Uttar Pradesh (Plains area) than in the western Uttar Pradesh where the average holding is comparatively larger.³² The purpose of land reform and resource planning should be to enable a much larger small and uneconomic farms to use new technologies. This calls for a new agricultural organisation which can avoid the evils both of capitalism and the regimentation of the individual under a socialistic State. We believe that looking to the pattern of

³²For details see Annexure ⁴/₄ & ⁴/₅.

holdings and productivity trends of major crops in western Uttar Pradesh, as also its neighbourhood with Haryana and Punjab, the agriculture in that region should develop on the individual ownership and ownership with a net work of service co-operatives which can function very profitably to provide inputs to farmers and marketable surplus to growing industrial centres. On the other hand for Eastern Uttar Pradesh with huge number of small holdings the joint co-operative farming seems to be a must. As the Indian Delegation to China on Agrarian Co-operatives aptly points out :

"Where are the funds to be found by the service co-operatives? Resources for the development ^{of} agriculture have, therefore, to be increasingly found from the savings in the agricultural sector itself. In an agrarian economy based on family farming in small units, the possibilities for savings and capital formation are severely restricted."³³

The New Strategy in agriculture has given both an opportunity and a challenge to faithfully reform the land system of Uttar Pradesh in which task it has been a pioneer in the early fifties. At its root, land reforms is basically a question of political will, which

³³Report of the Indian Delegation to China on Agrarian Cooperatives, p. 132.

unfortunately has all along been conspicuously lacking in Uttar Pradesh as in most of the other States in India. The re-structuring of the land holdings through tenure reforms, consolidation schemes and partial implementation of the land ceilings have given new hopes to the peasantry but the reform measures do not go far enough to raise agricultural productivity which is the primary aim of all development planning. With a flexible co-operative framework to help the small farmer and creation of more economically viable holdings while at the same time bifurcation of increase in population to non-agricultural jobs the vicious circle of poverty and low productivity can be broken as it has been possible in China, Japan and Taiwan, all of them Asian countries with high density of population. Land reform should not result in mere change of proprietorship of lands, but should encourage agricultural progress.

CHAPTER V

LAND REVENUE SETTLEMENTS IN UTTAR PRADESH

Taxation of land has functioned as the major link and the point of contact between the State and the agricultural communities. Taxes on the unimproved value of land in the agricultural (and urban) sector have been favourites since Ricardo, and it was thought that the tax would fall on the unearned income of the owner. Value which arises without any exertion or sacrifice on the part of its owners should not be allowed to become a source of private income. As a means of implementing this proposition, a society is enjoined by Mill to use its taxing power to keep unearned gains out of private hands. From an economic point of view, the basic advantage of most land taxes in developing countries is that "they would strike the nonmonetized sectors, and the sectors consuming their own production."¹ Potential economic surplus according to Baran is "the difference between the output that could be produced in given natural and technological environment and the help of employable productive resources, and what might be regarded as

¹Stephen B. Lewis, Jr : Taxation of Agriculture and Economic Development.

essential consumption."² Economic progress requires that, in the initial stages of the development process a high proportion of this surplus be channelled into productive investment. The task of tax policy for economic development, accordingly, is to mobilize this surplus, direct it into productive channels, and continually to enlarge its size.³

Bases Of Land Taxes :

A close examination of the different bases of land taxes in use in the underdeveloped countries suggests an initial grouping into three major categories, depending on whether the taxes are assessed according to (1) land area, (2) a rental value concept, or (3) an income concept. Generally speaking the better assessment methods in use fall into two groups:⁴ (1) those which require the officials to estimate the income-producing capacity of each class of land, following presumably standardized land classification and assessment procedures, and then to separate out the part representing rental value and

²Paul A. Baran : The Political Economy of Growth, Monthly Review Press, New York, 1957, pp. 22-23.

³Chelliah P. J. : Fiscal Policy in Underdeveloped countries - p. 66.

⁴Wald : Taxation of Agricultural Lands - p. 17.

(ii) those which require the officials to appraise the capital value of the land, either by reference to the prices at which land is being sold or in accordance with established standards of appraisal, and then to compute rental value on the basis of an assumed rate of return. Under both methods, the result is a presumptive assessment, rather than an assessment based on any record of individual experience.

Different States in India have adopted different bases of land revenue.⁵ "Net assets" or economic rents, is the basis of assessment in Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, in some parts of Bihar, Orissa and West Bengal. In Madras and Andhra Pradesh, the assessment is based on the 'net produce' or annual value. In Maharashtra, Rajasthan, Gujarat, Mysore, and in certain other parts of the country, the basis is empirical method, in which the rate of assessment is arrived at empirically with reference to general economic considerations and in practice is based on the actual rents paid rather than on any theoretical calculation of the net produce. The assessment is mostly based on the subjective impressions of the settlement officers.

⁵(1) Report of the Taxation Enquiry Commission
Vol. III, pp. 185-86.

(ii) Direct Taxation of Agriculture in India.
A.C. Angrish - p. 20-21.

Except in Madras and Andhra, the main emphasis in all the above States is on rental value. As the Taxation Enquiry Commission 1953-54 points out:⁶

"Though the basis of assessment in these States is net assets or is empirical, the general method adopted is to determine by enquiry the actual rents received by the landholders and then to fix the assessment after allowing for certain deductions." Net assets which has been the basis of assessment in Uttar Pradesh has been defined as the "estimated average annual surplus of an estate or a group of estates remaining after deduction of the ordinary expenses of cultivation as ascertained or estimated." In other words, it is rent less all costs incurred in earning the rent. The government demand is theoretically based on an economic rent, but actually takes many other factors into consideration.

Place Of Land Revenue In The Indian Fiscal System:

A public charge on land is one of the most ancient forms of taxation, and its continuance to this day, in some form or other, is so widespread as to be almost universal. In the writings of Manu, we find that the main source of state revenue was a share of the gross produce of all land varying according to the quality

⁶Taxation Enquiry Commission, Vol. III, p. 186.

of soil and the amount of labour necessary to cultivate it. This share was generally one - sixth of the gross produce, i.e., of the grain - heap made up at the threshing floor. The share of produce due to the ruler was assessed upon a village as a whole and its payment was the joint responsibility of the whole village community. According to Kautilya's Arthashastra, land revenue was fixed at one - sixth of gross agricultural produce. In later methods of assessment the king's share of the produce was determined in accordance with the estimates framed of the standing crops and the system of payment of land revenue in cash gradually came into vogue.

Attempts at reforming the system were first made by Sher Shah, but a major change was brought about only during the reign of Akbar, who, with the assistance of his minister, Raja Todar Mal, laid the foundation of a system which furnished the basis for land revenue policy for generations thereafter. Under this system, all the land was measured by a uniform standard & the average produce of a bigha of land was ascertained. Under the later Mughals, the spirit of Akbar's land revenue policy was totally avoided⁷ and with the decline of the Empire the provincial officers became powerful and exploited the

⁷Lanka Sundaram : Mughal Land Revenue System, p. 51.

landholders. The East India Company, after the acquisition of the 'Diwani' of Bengal, Bihar and Orissa in 1765, continued for some time the prevailing land revenue system and tried to collect its revenue through supervisors or collectors. But this system could not serve the purpose of administrative reconstruction and a regular inflow of revenue for waging the various wars for ceding the interior territories of the country. In 1793 the Cornwallis system of the permanent settlement converted the revenue farmer's of the Moghuls into Zamindars with permanent and inheritable rights in land. While the settlement firmly established the proprietary rights of the Zamindars, and limited their liability to pay 1/10th of the rent collection to the Government, the rights of the tenant cultivators were left in an uncertain and precarious state.⁸ In the period immediately following the permanent settlement, the Zamindars suffered heavily through excessive burden of land revenue assessment. As time went on, however, with rising prices and rents, the burden of assessment on the Zamindar became lighter.

Thirumalai, S:

⁸ Post-War Agricultural Problems and Policies in India.

Mahalwari And Ryatwari Settlement :

Very soon after its introduction in Bengal, the Cornwallis system encountered strong opposition in other parts of the country.⁹ The opposition was spearheaded by Sri Thomas Munro in Madras, Elphinstone in Bombay, and Holt Mackenzie in the North-Western Provinces (Uttar Pradesh afterwards). Their attitude was one of judicious preservation of the old patterns and traditions, joined to a genuine desire for cautious reform. Permanent limitation of the State demand which the Bengal system involved was an unjustified fiscal sacrifice when the company's rule was more securely established. Further, in certain parts of the company's territories, viz., the Uttar Pradesh and the Punjab, there were well organised village communities. These areas thus presented a different problem, and settlement was concluded with village communities and the villagers were held jointly and severally responsible for the payment of revenue.¹⁰ This came to be known as the Mahalwari system of land revenue, as the land revenue was assessed on the 'mahal'. In some parts of Madras, the land revenue was directly settled with individual ryots in view of the difficulty

⁹Joshi & Others : Studies in the Taxation of Agricultural Land and Income in India, p. 11.

¹⁰Report of the Taxation Enquiry Commission, 1953-54 Vol. III, p. 183.

of making settlements with the whole villages. This initiated the ryotwari system whose basic techniques were the very antithesis of the permanent settlement, though the principle of private property inhered in both. The land revenue was fixed at 45 - 55 per cent of the gross produce. In these cases the assessments were not fixed in perpetuity but for a definite period, varying from 15 to 40 years. This system was later introduced in Bombay and other neighbouring provinces. Both these systems -- mahalwari and ryotwari - involved detailed surveys of fields and classification of lands according to soil.

Early Land Settlements In Uttar Pradesh :

Apart from some area which was permanently settled, the land system in Uttar Pradesh as evolved by the British was, in the main, a Zamindari system which occupied somewhat a middle position between the permanent settlement system of Bengal and the ryotwari system of Madras.¹¹ The tenant was not as helpless against the Zamindar in Uttar Pradesh as in the Bengal system; a revenue administrative machinery from village upwards including courts for correction of land records was set up to supervise the working of the system. Land revenue was permanently fixed in Banaras Division, part of Azamgarh and certain areas of Gonda and Farrukh. When later on the company's rule was more securely established, the

¹¹Uttar Pradesh, Taxation Enquiry Committee Report 1968-69 - p. 18.

view gained ground that the Government would benefit more from periodical settlements. The temporary settlements were made in the first instance for a period of 30 years in different districts in different years. In 1929 the period of settlement was extended from 30 to 40 years.

In the permanent settlement of Varanasi under the regulation of 1795 as well as in the early settlements during the years 1801 to 1820, no attempt was made to evolve any regular principles for the assessment of revenue. The only basis was the record of past collections, which were usually enhanced on the bids of speculators and farmers of revenue. This is shown by the history of early settlements in Fannur, Alifan and Mathura. Under the regulation of 1795, the State took 90 per cent of the total collections. The Uttar Pradesh Zamindari Abolition Committee points out :

"The general ignorance about the agricultural classes, their tenures and customs, resulted in an exaggerated idea of the rights of those with whom engagements were made and gave them an opportunity to usurp gradually the rights of the classes placed in a position of inferiority and subordination to them."¹²

¹²Report of the U.P. Zamindari Abolition Committee, Vol. I, p. 125.

The regulation 7 of 1822 was a great advance upon the casual and haphazard methods employed previously. It laid down precise principles for assessment of revenue, which was to be based upon a detailed survey and field to field measurement, with a classification of various types of soils according to their productivity. Cash rents and rents in kind were to be carefully recorded. Land revenue was fixed at 80 to 83 per cent of the 'net produce'. The principles enunciated in the regulation of 1822, however, imposed a burden upon the administrative machinery to which it was unequal. There was a general tendency towards over assessment. The other common difficulty was the inordinate delay of the proceedings, the period required to complete the settlement varying from 10 to 16 years in most of the districts. On an average only 10 to 20 villages were settled in a year.

Principles Of Assessment :

During the second half of the nineteenth century with the development of means of transportation and communication the economic unification of the country had begun. It was in this period that all the work of survey and settlement was completed and the land revenue demand was based on principles, which even today with slight modifications, form the basis of land assessment.¹³

¹³ B. R. Misra : Land Revenue Policy in the United Provinces Under British Rule, p. 74.

According to the Directions for Revenue Officers¹⁴ (published in 1949) the assessment of estates was not to be calculated by any fixed arithmetical process or by any fixed rule. It should take into account not only the existing gross or net produce of the land but should also afford a guide to the produce of years to come which would depend upon extension or contraction of cultivation, improvement, or deterioration in agriculture, opening of canals and development in the means of transport. Hence, the Settlement Officer was to proceed on the assumption that the "assessment operation was not one of arithmetical calculation, but of judgment and sound discretion." Subsequently the settlement rules of Saharanpur, 1855 reduced the revenue demand from 66 to 50 per cent of the net assets.

The most important stages in the settlement operations are soil classification and to fix the 'circle' rates, each circle constituting of villages which are homogeneous in respect of such characteristics as climate, communications and agricultural conditions. In the settlement of Allahabad district in 1915 the soil was classified into 4 main classes -- gauhan (land situated in the village), manjha (middling land), har (land in its

¹⁴Thomason, J., Directions for Revenue Officers in the North-Western Provinces, (Calcutta 1850). (India Office Library, London).

natural condition not improved by irrigation etc.) and chanchar (rice land).¹⁵ These classifications have become out of date today as is borne out by a recent expert Enquiry into Agricultural Taxation in Uttar Pradesh.¹⁶ The Committee recommends a fresh rapid settlement based on a "reclassification of the large number of existing soil groups into a smaller number of soil classes, say about three." It further opines, that with the extension of irrigation, availability of assured water supply and use of new inputs such as improved seeds and chemical fertilizers "the differences between quantities of produce raised on different soil classes are getting gradually reduced." Our survey of the district also confirmed this view-point.

In connection with the third regular settlement, revised rules were framed in 1894-96, the main changes being the exclusion from the net assets of any consideration of prospective increase in value and the actual rent roll became the basis of assessment. The average time taken for the settlement of a district was reduced to 3 years. Under the Uttar Pradesh Land Revenue Act 1901 the power of the Settlement Officers to fix the rent of

¹⁵ Gazetteer of India, Uttar Pradesh Allahabad --
p. 204.

¹⁶ Uttar Pradesh Taxation Enquiry Committee -- 1974
p. 4.54.

occupancy tenants was increased. The Uttar Pradesh Land Revenue (Amendment) Act 1929 introduced a number of changes. The revenue was reduced from 50 per cent to 40 per cent of the net assets of a Mahal and period of settlement extended to 40 years. However, in some cases the settlement officer could increase it to 45 per cent or decrease it to 38 per cent, and in exceptional cases to 25 per cent. Pandit Govind Pallabh Pant, who was a member of the Select Committee, noted in his minute of dissent :

"It is an elementary principle of legislation that statutes should not lack in precision and definiteness. The doctrine is applied with special rigidity to fiscal enactments which should not leave any loophole for the vagaries of the executive."¹⁷

Resettlement has not been possible in Uttar Pradesh (as in other States) due to the last world war and the enhanced pressure of work on the administrative machinery following the development programmes. The last settlement outside the hill areas was done in 1945 in Jhansi. Out of 45 districts 14 were settled between 1941-45, 19 by 1940 and 12 by 1920.¹⁸

¹⁷Report of the U.P. Zamindari Abolition Committee, p. 147.

¹⁸See Annexure 54.

Review Of Settlement Policy :

The British land policy, by creating full proprietors with a body of subordinate cultivators, resulted in creating two distinct types of payment for the property or occupation of land, namely, the rent paid by the cultivator to the intermediary and the revenue paid by the latter to the State. By the time the next settlement was due, the intermediary used to earn large profits by enhancing the rents payable by some of the classes of tenants. If the revenue was frequently revised it would have been possible to maintain a constant percentage in the relation of revenue to assets. Though the percentage of revenue to net assets was lower in the case of small proprietors the margin of difference was very thin, so that the burden borne by them was relatively much heavier than the burden borne by the large proprietors. In the case of rents with which we are mainly concerned there was practically no element of progression. The rent was assessed upon the productive capacity of the soil, irrespective of the size of holding and the paying capacity of the cultivator. Since it was levied at a flat rate, the rent was regressive and its relative burden was extremely unequal upon different classes of rent payers. A peculiar feature of the disparity was due to the historical origins of the various classes of proprietors and tenants which is revealed from the following table which shows the incidence of rent in Uttar Pradesh in 1945-46:-

Table No. 1
Incidence Of Rent In Uttar Pradesh (1945-46)

Tenures	Incidence of rent in rupees per acre	
	In Agra	In Avadh
Full proprietary	4.76	5.12
Occupancy (all kinds)	4.78	3.67
Hereditary (all kinds) including tenants on special terms in Avadh	6.09	6.38
Non Occupancy	5.84	7.01

Source : Zamindari Abolition Committee Report -
p. 529.

As compared with these rents, the proprietor whose ability to pay was the highest was assessed to merely nominal revenue on land in his proprietary cultivation. An allowance was made of 15 to 30 per cent of valuation of land, and finally only the land revenue i.e. about 38 per cent of the figure thus arrived at was what the Zamindar paid to the State. It is difficult to estimate the average revenue for an acre of sir or khudhasht as their revenue rates are not separately computed but on a rough calculation it is likely to be about Rs. 1 per acre

only.¹⁹ The policy of progressive reduction of revenue was dictated mainly by political reasons and administrative difficulties. It did not contribute towards agricultural development and infact has been indirectly responsible for lack of industrialisation and economic development in the country. The Zamindar class reaped the major benefits of rising gross rental without any exertion or investments to improve agriculture. On the other hand there was a persistent demand on the part of the peasantry for a greater security of tenure and fair rents. In face of the acute distress and agrarian unrest the government felt the need for caution in the assessment of revenue and the percentage of revenue to assets was progressively reduced.

Effect Of Zamindari Abolition :

Immediately before the abolition of Zamindari, Rs. 18.44 crores were paid by the tenants as rent to the zamindars who, in turn, paid Rs. 7.06 crores to the State as land revenue. The rents paid by the erstwhile tenants of zamindars, on the basis of the rent rates sanctioned at the last settlement, have generally remained the same in the post-zamindari abolition period, except that these have been converted into land revenue payable to the State. With the advent of new institutional rights

¹⁹Report of the U.P. Zamindari Abolition Committee - p. 529.

in land new systems of land taxation and revenue assessments could have been adopted.²⁰ But the land reform legislation by-passed the question of putting the land revenue on a scientific basis. The land revenue assessment as evolved by the long piece of legislation during the British rule had no element of progression and fluctuated from one tenure to another. The per acre revenue on non-occupancy tenants and hereditary tenants was much higher than that of the permanent tenure holders. Even today the revenue per acre paid by sirdars is more than twice that of the bhumidhars.²¹

The incidence in 1970-71 in Uttar Pradesh on Bhumidhars and Sirdars taken together is Rs. 4.32,²² which is slightly lower than the pre-zamindari abolition figure. This is obviously due to acquisition of Bhumidhari rights by a number of sirdars and the relief in land revenue given to them. While the burden on cultivators has remained the same, the yield per acre has been increasing, and "revenue fixed as a percentage of income at prices prevailing 30 - 50 years ago is an utterly unsatisfactory contribution to the state revenues

²⁰Walter C. Neale : Economic Change in Rural India - Land Tenure and Reform in Uttar Pradesh, 1800-1955. P. 246

²¹Revenue Administration Report.

²²See Annexure ⁵/₂

from the agricultural sector."²³ The Taxation Enquiry Committee taking the incidence of rent (in 1944) in Etah district as representative of the State as a whole comes to a significant conclusion that "the cultivator of Etah is at present (1970-71) on an average, contributing to the State nearly 1/100th of the gross produce value as against 1/8th of the said value at the time of last settlement (1944)".²⁴

From a regional point of view there are considerable differences in the land revenue per acre in the various districts and divisions.²⁵ These are practically the same as existed before zamindari abolition since no revision of land revenue settlement has taken place since then. The relevant data with regard to land revenue per acre before and after Zamindari are given below:

²³Taxation Enquiry Committee 1974 - U.P.
p. 17, Ch. IV.

²⁴Ibid. p. 18. Gross value of Agricultural produce during 1970-71 has been taken from the Economics and Statistics division of the State Planning Institute.

²⁵Singh & Misra : Land Reform in Uttar Pradesh,
p. 135.

Table No. 2

Land Revenue Per Acre Before And After Zamindari Abolition

Division	1946-47		Revenue per acre 1959-60 (In Rs.)	Present revenue per acre as per- centage of that in 1946-47	Present revenue per acre as percentage of rent per acre in 1946-47
	Rent per Acre (In Rs.)	Revenue Per Acre (In Rs.)			
Meerut	5.77	2.45	5.04	205.7	87.34
Agra	5.33	2.09	4.95	236.8	92.87
Pohilkhand	5.32	1.80	5.19	288.3	97.55
Allahabad	5.16	2.10	4.69	223.3	90.89
Jhansi	2.60	1.06	2.41	227.4	92.69
Varanasi	3.69	1.44	4.20	291.7	113.82
Gorakhpur	3.44	1.74	3.87	222.4	112.50
Lucknow	6.23	2.00	5.61	280.5	90.04
Faizabad	5.54	2.03	5.67	279.3	102.34
All	4.88	1.87	4.67	249.7	95.69

Source : Figures calculated from the data taken from
the respective Revenue Administration
Reports.

Vide : B. Singh & Misra ---- p. 135.

Land revenue per acre even after zamindari abolition continued to differ from division to division. The disparity may be accounted for by differences in the proportion between bhumidhari and sirdari area in various divisions as well as by the differences in the increase in the total area under holdings which in all the divisions taken together has increased from 36.38 million acres to 45.31 million acres, i.e. by 24.5 per cent. The current land revenue per acre for the state as a whole is about 95 per cent to 96 per cent of the former rental demand per acre. In no division it is less than 87 per cent of the pre-zamindari abolition rent per acre. But in three divisions, viz. Varanasi, Gorakhpur and Faizabad it exceeds the rent per acre under the zamindari system. All this indicates ²in_^equity of tax burden on the different cultivators in Uttar Pradesh and the necessity for a revision of land revenue assessment.

Agricultural Income Taxation :

State Governments, including that of Uttar Pradesh also resorted to imposition of agricultural income-tax in order to mop up some of the income of the higher income groups in the agricultural sector. Land revenue being a tax in rem and not in personam, it has been often advocated to supplement it with a tax on agricultural incomes levied at progressive rates on the same principles as general income tax. The Taxation Enquiry Commission observed :

"We would urge that an agricultural income-tax on the higher agricultural incomes, because of the greater equity it brings into the system, if not of the revenue it brings to the exchequer, should be adopted by all the States which have not yet done so."²⁶

The Uttar Pradesh Government imposed an Agricultural Income-Tax in 1948. The tax was payable by a person whose total agricultural income of the previous year exceeded Rs. 3,000/-, which figure was substituted by Rs. 4,200/- in 1954. A person who cultivated more than 30 acres of land only was liable to pay the tax. The revenues from this tax soon fell to negligible amounts because of the abolition of Zamindari. Total collections remained well below the figure of a crore of rupees a year and towards the end they were nearer half a crore. There, was, however, a spurt in imposition of demand during the last year of its operation because escaped cases were assessed and the total collections in 1957 were Rs. 1.37 crores. This tax was replaced by the Large Land Holdings Tax Act in 1957 which levies a holder's tax on a slab system on all land holdings whose annual value exceeds Rs. 3,600. The Uttar Pradesh Large Land Holdings Tax Act, 1957 was repealed with effect from 30th June, 1961, on the enforcement of the Uttar Pradesh Imposition of Ceiling on Land Holdings Act, 1960. Its main

²⁶ Taxation Enquiry Commission, 1953-54, Vol. III, p. 221.

provisions, with certain modifications, were, however, revived in the Uttar Pradesh Vrihat-Jot-Far Adhiniyam 1963 which came into force on July 1, 1962.

The total collections from the tax on agricultural income from 1948-49 onwards are given in Annexure.²⁷ During the 26 years of its operation, the tax on agricultural income has yielded only Rs. 12.69 crores to the State revenues. It was natural that the income from holdings declines as a result of imposition of ceiling on land holdings on the one hand and the reduction in the size of holdings due to successions, partitions and transfers on the other hand. The assessment of this tax has posed many administrative problems. Most of the revenue now being collected under this head comes only from plantations; the number of farmers growing non-plantation crops who are covered by the tax, and the quantum of tax paid by them, are far too small to make any appreciable impact on the overall incidence of direct taxation on agriculture. Consequent upon the enforcement of Uttar Pradesh Act XVIII of 1973, the ceiling has been fixed at 7.30 hectares (18.04 acres) of irrigated land which will have an effect of further reducing the number

²⁷See Annexure 5.3

of larger holdings. The assessment of Vrihat-Jot-Kar has sharply declined from 14.39 lacs in 1971-72 to 3.76 lacs in 1973-74 which shows that it has now no more significance under the new pattern of holdings being evolved under the Ceiling Act.

CHAPTER VI

AGRICULTURAL TAXATION IN UTTAR PRADESH (Its Incidence & Elasticity)

The importance of agriculture as the predominant sector in the economy of Uttar Pradesh logically demands that it should be harnessed as a major instrument of capital formation and labour transfer for general economic development of this backward State. Public investment under the plans has contributed substantially to the development of agriculture, ranging from 35-45 per cent of the total outlay under agriculture and allied programmes (including irrigation).¹ Encouraged by increased public investment and the advent of the new technology in food crops private investment in agriculture also increased. According to a survey conducted by the Economics and Statistics Division of the State Planning Institute, Uttar Pradesh, rural investment in 1969-70 was Rs. 155 crores, much more than plan outlay for that year.[⊕] The breakthrough in the field of agricultural production, together with the rise in prices, has led to a substantial increase in agricultural incomes. The prices of both agricultural and industrial products increased during the decade ending 1972-73. But for the period as a whole the rise in the prices of agricultural commodities has been greater than

¹Vide Chapter III.

⊕ Annexure 6.4

that of industrial goods and as a result the farmers did not have a bad bargain.

Table No. 1

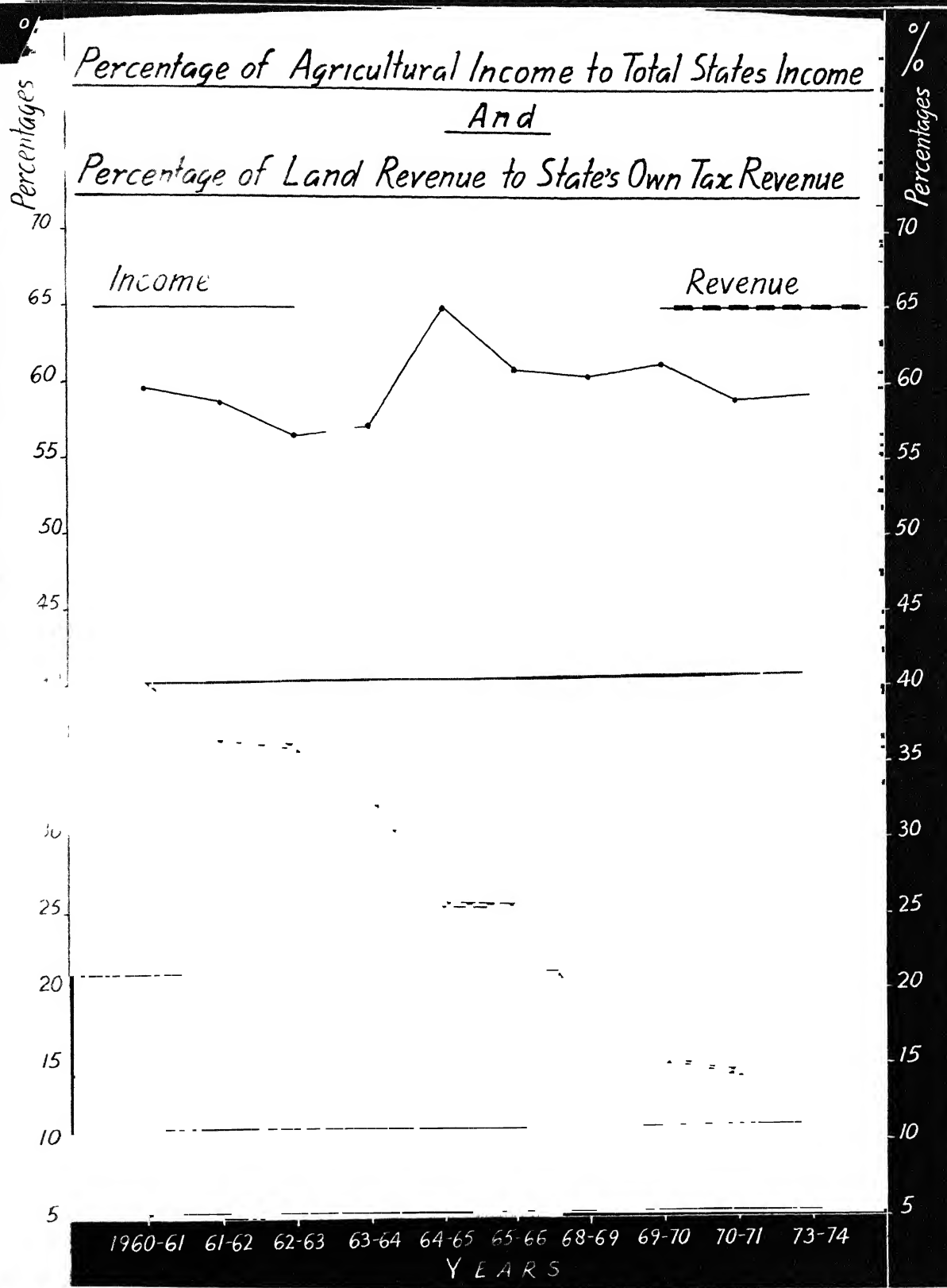
Parity Index In Uttar Pradesh

<u>Year</u>	<u>Parity Index (1957-58 = 100)</u>
1960-61	95.7
1965-66	107.4
1968-69	105.7
1972-73	111.2
1973-74	112.3

Source : Compiled from Quarterly Bulletin of Statistics, Economic and Statistics Division, Uttar Pradesh Table 10.6.

Contribution To Exchequer :

The contribution of agriculture to the public exchequer has, however, not been commensurate with the rise in incomes. In 1960-61 land revenue, tax on agricultural incomes and the lumpsum amounts deposited by sirdars for acquisition of bhumidhari rights yielded Rs. 23 crores. These fetched almost the same revenue (Rs. 22 crores) in 1970-71, whereafter the receipts fell due to the exemption granted to holdings upto 6.25 acres from the liability to pay land revenue. As a percentage of income from agricultural sector direct agricultural taxation showed a



steep decline from more than 2 per cent in 1960-61 to 0.83 per cent in 1972-73.² With the anticipated growth of agricultural production and guaranteed substantially higher support prices for major agricultural products, it is reasonable to expect the farm sector to make a larger contribution towards financing the development effort. This is more so when a substantial part of the plan outlay in the public sector will benefit agriculture directly or indirectly and help in improving the standards of living of the poor.³ As a percentage of total tax revenues, land revenue and agricultural income taxation declined from 40 per cent in 1960-61 to 14 per cent in 1970-71 and to 11 per cent only in 1973-74.

Tax Incidence On Agricultural Sector :

In reshaping of the State tax policy to raise additional taxes in the context of development planning, an attempt should be made somehow to distribute the burden of tax as equitably as feasible. As the Harvard Conference on Agricultural Taxation emphasized,

"A study of incidence is considered a necessary first step in any broader analysis of taxation effects, be it in connection with

²See Annexure C/1.

³Govt. of India, Planning Commission : Draft Fifth Five Year Plan (1974-79), Vol. I, p. 60.

incentives, resource transfers, taxable capacity, or equity."⁴

In view of declining importance of agricultural taxes in comparison with the rising trend in agricultural productivity and prices it is relevant to examine (a) the inter-sectoral burden and intra - sectoral burden within different groups of farmers (b) the inter-regional disparity of tax burden in the various Economic Regions of Uttar Pradesh. As far as the Direct Taxes are concerned the study of incidence does not create difficult problems. But in view of the paucity of data on incomes and expenditure and lack of monetisation in the rural sector the allocation of indirect taxes involves certain assumptions about money transactions. Taxation Enquiry Committee in Uttar Pradesh thought that cash expenditure represents about 50 per cent of total expenditure for rural households and 95 per cent for urban households in Uttar Pradesh.⁵ Appropriating indirect taxes levied by the Uttar Pradesh Government into different expenditure brackets of the rural and urban households in proportion to the expenditure on taxable items, the committee arrives at the following results :

⁴Harvard Law School, International Program in Taxation, Papers and Proceedings of the Conference on Agricultural Taxation and Economic Development, Jan-Feb. 1954, p. 51.

⁵Uttar Pradesh Taxation Enquiry Committee 1968-69, p. 13.

Table No. 2

Indirect Taxes As Percentages Of Consumer Expenditure In
Uttar Pradesh (1965-66)

Monthly Household Expenditure Group	Rural	Urban	Total
1	2	3	4
1 - 100	1.21	4.34	1.58
101 - 250	1.69	5.11	2.16
251 - 400	2.22	7.17	3.25
401 - 500	3.25	9.26	4.62
Above Rs. 500	5.69	12.20	9.66
All Households	1.68	6.13	2.36

Source : Report of the Taxation Enquiry
 Committee, 1968-69, Uttar Pradesh,
 p. 13.

There were obvious limitation of this analysis and the committee was quite conscious about the same, and thought this study of incidence "to be useful more as a guide line than as a measure of the exact magnitude of the burden of existing taxes in Uttar Pradesh on the different expenditure categories of rural and urban households."⁶ Table 2

⁶Taxation Enquiry Committee 1968-69, U.P.,
 p. 16.

111

shows that the incidence tends to rise for the rural as well as for urban households with the increase in the size of the expenditure group. For all households taken together, the incidence for the rural area was 1.68 per cent and for urban area 6.13 per cent, the combined incidence being 2.36 per cent. The study reveals that the element of progression as well as the difference in incidence on rural and urban households was mainly due to more cash expenditure. Further a major portion of their total expenditure was on foodgrains which was treated as exempt from tax for the rural households in the study.

Other studies on the problem of inter-sectoral incidence of State taxes also point to the same conclusion. According to a non-official view, taking all the central and state indirect taxation as a whole in 1965-66, the per capita indirect tax in the agricultural sector was Rs. 9.4, whereas it was Rs. 29.00 in the non-agricultural sector i.e. the non-agricultural sector bore almost 3 times more indirect taxes than the agricultural sector.⁷ The burden of indirect taxation, central and State is greater on urban groups than on parallel rural groups has been also revealed in all the three studies^{of} the Ministry of Finance, the study on Mysore State by the National Council of Applied Economic Research and a study made by the Taxation Enquiry Committee, Orissa.

⁷Hemlata Rao : Tax Incidence on Agricultural Sector in Uttar Pradesh, Economic and Political Weekly, Vol. VI (37) Sept. 1971, p. 1965.

The implications of these for a tax policy for the farm sector is that, given the existing structure of indirect taxes, larger revenue yields are possible only if there is greater monetisation and relatively larger purchases of manufactured goods by the farm sector. These are slow and gradual changes and by and large they are the result of the process of economic development itself.⁸ However, looking to the input consciousness amidst a sizeable class of middle and big farmers and a variety of things of daily use like cycles, radio and tarpilene coming to village it is possible to bring within the indirect tax net much more of the industrial goods, like fertilizers, agricultural implements and even the farm-households oriented consumption goods. From the resource mobilisation aspect of the problem it may be suggested that the rural sector may be induced to exchange more of foodgrains for urban goods of consumption at slightly lower prices.

Taking direct and indirect taxes together, in Uttar Pradesh, rural households paid 2.87 per cent and urban households 11.35 per cent of their respective expenditure.⁹ Dwivedi has estimated tax burden between the agricultural and non-agricultural sectors

⁸ S. L. Shetty : Inter-Sectoral equity in tax burden, *Economic and Political Weekly*, Vol. VI (31-33) 1972.

⁹ Uttar Pradesh Taxation Enquiry Committee, 1968-69, p. 15.

between 1951-52 to 1965-66 and concludes that the relative tax burden in the non-agricultural sector has been nearly double the same on the agricultural sector during this period and that the inter-sectoral disparity in the tax burden of the two sectors was introduced at the beginning of the Second Plan.^⑩ To conclude our discussion on inter-sectoral tax burden it may be useful to quote Dr. V. K. R. V. Rao who opines :

"Thus we can say that the incidence of taxation in the higher income brackets of the rural sector is far less than their counterpart in the non-agricultural sector, although the variation in taxes in the lower income brackets between both the sectors viz. land revenue plus indirect taxes on the agricultural sector and only indirect taxes on the non-agricultural sector is much less; hence there is a case for higher incidence of tax in the higher agricultural income groups."¹⁰

Tax - Income Ratio :

The concept of tax-income ratio has been used by some studies to find out the relative inter-sectoral or inter-class tax burden. However, this concept should be used with caution as it may not by itself consider the minimum needs of the subsistence farmer and if mechanically

^⑩ Dr. V. K. R. V. Rao : "Public Finance, Economic Growth and Per-distribution of Income in India 1951-52 to 1960-61": The Economic Weekly Vol. VIII, No. 34, Apr. 26, 1961.

followed may lead to regressive taxation. In India, despite the low level of average income in the agricultural sector, the unequal distribution of land holdings¹¹ and income, points to a considerable capacity to save in the upper income groups. As far back as 1963-64, the Committee on Distribution of Income and Levels of Living, headed by Prof. Mahalanobis, had pointed out that approximately 6 per cent of the rural households having incomes around Rs. 3,000 in 1960-61, accounted for 23 per cent of the aggregate income and owned about 27 per cent of the total cultivated land. For Uttar Pradesh the land distribution statistics suggest that 20 per cent of the total cultivated land owning households own 66 per cent of the cultivated area.¹² That the richer farm sector has an advantage both in the factor and product market and his position has improved vis-a-vis the weaker sections in the wake of the Green Revolution has been evidenced in various recent studies.¹³

During the period between 1950-51 and 1960-61, while the non-agricultural sector paid 20.6 per cent of its additional income in taxes, the agricultural sector,

¹¹Refer to Ch. IV on Land System in Uttar Pradesh for details.

¹²Report of 16th round of National Sample Survey.

¹³Parthasarathy : Green Revolution and ^{the} Weaker Section.

paid only 11.6 per cent. This implies that the non-agricultural sector carried almost two-thirds of the burden of additional taxation during the 1950's.¹⁴ In terms of per capita taxation Ved Gandhi estimates that in 1950-51 it was Rs. 8 in agriculture and Rs. 36 in non-agriculture, which rose to Rs. 14 and Rs. 75 respectively in 1961-62. A more recent review gives per capita taxation in 1969-70 as Rs. 30 and Rs. 200 for agricultural and non-agricultural sectors respectively and the tax-income relationship as 7.5 per cent and 19.1 per cent for these two sectors.¹⁵ The gap must have widened further in the last decade, especially after the abolition of land revenue in certain states and the reduction of its burden in others since 1967. The Manchoo Committee made the following comments on the inequity in tax incidence between agricultural and the non-agricultural sectors:

"Although agriculture accounts for nearly half of India's national income, the taxes contributed by it are around Rs. 113 crores only, whereas the contribution by the non-agricultural sector is over six times as much. In fact, tax burden on urban income is relatively so high that

¹⁴Ved P. Gandhi : Tax Burden on Indian Agriculture.

¹⁵The Economic Times, Annual 1974 : Tax Potential of Farm Incomes - p. 145.

a tax payer having urban income of Rs. 10 lakhs is left after paying income tax with almost as much income as another person having an agricultural income of Rs. 1 lakh only."¹⁶

Inter-Regional Incidence :

We have elsewhere¹⁷ indicated that the benefits of planned investments have been unevenly distributed in the different regions of the State resulting in sizeable differences brought in by the external economies associated with investment in irrigation, soil conservation, fertilisers and agro-industrial development. The productivity of land greatly varies from region to region depending on the fertility of soil, rainfall and irrigation facilities.¹⁸ An important measure of such inter-regional productivity differential is the gross value of agricultural produce per acre of net sown area. The Economics and Statistics Department of the State Govt. prepared certain Economic Indicators¹⁹ to study inter-district economic conditions and more precisely to locate the

¹⁶Direct Taxes Enquiry Committee, p. 41.

¹⁷vide Chapter III.

¹⁸N.C.A.F.P. : Techno-Economic Survey of Uttar Pradesh, p. 23.

¹⁹Economic Indicators, State Planning Institute, Economics and Statistics Department, Uttar Pradesh, June, 1973.

backward districts from the point of view of economic development. The regional data of average agricultural produce for the period 1964-65 to 1968-69 was as follows:

Table No. 3
Regional Agricultural Productivity

Region	Value of Agricultural Produce/ Hectare in Rs. (at constant prices of 1960-61)	Percentage of Workers in Agriculture
Eastern Region	645.72	79.31
Hilly Region	654.75	75.82
P. Vhand Region	377.39	79.58
Western Region	799.47	70.08
Central Region	719.26	74.88

Source : State Planning Institute, Economics
Statistics Department.

The table no. 3 suggests that agricultural productivity has lagged behind in the first three regions and the western Uttar Pradesh shows the highest value of agricultural produce. In his Inter-District incomes and Economic Profiles of Uttar Pradesh, Prof. Daljit Singh also gave the relative picture of agricultural productivity of a similar pattern, the highest place in agricultural yield per hectare in 1970-71 (at 1960-61 prices) being given to Meerut division (Rs. 1033.14) and the lowest to Jhansi

division (296.93) the three eastern division of Faizabad, Gorakhpur and Varanasi having an average of Rs. 508 had thus only half the productivity of the Meerut Division.²⁰

As against these statistics of produce we find the land revenue rates have shown no progression at all as is shown by the following divisional per acre incidence of current demand for the plain districts for 1969-70.²¹

Table No. 4

Division-wise Per Acre Incidence Of Land Revenue - 1969-70

Division	Per Acre Land Revenue (Rs. 0.00)
Meerut	5.20
Agra	4.87
Moradabad	5.37
Allahabad	5.06
Jhansi	2.61
Varanasi	4.65
Gorakhpur	4.17
Lucknow	6.45
Faizabad	6.29
State	4.88

Source : Board of Revenue.

²⁰ Paljit Singh : Inter-District Incomes and Economic Profiles of Uttar Pradesh.

²¹ See Annexure 6/2.

A comparison of produce values per acre and the tax incidence shows it beyond any doubt that the direct taxation of agriculture has not borne any relationship with the taxable capacity of the farm sector in different regions. Some of its historical causes were traced in the previous chapter and it was emphasised that the system of intermediaries and long periods of settlements interacted to give rise to a totally inequitable system of land revenue devoid of any relationship with the intensity of land utilisation and efficiency in production.

Elasticity Of State Taxes :

Fiscal policy in an economy like that of Uttar Pradesh should have four major objectives:²²

(i) Resource mobilization and allocation, (ii) Redistribution of income and wealth, (iii) Curbing of excess demand for commodities and (iv) Stimulation of activities in the private sector through appropriate incentives. State tax policy can be used for all these aims but in the absence of deficit financing on a substantial scale by a lower authority in a federation, tax policy is the most powerful method of mobilisation of resources. The constitution of India like the constitutions of other federal and quasi-federal countries assigns more important and relatively elastic sources of revenue to the Central Government.

²² Uttar Pradesh Taxation Enquiry Committee 1974, p. 2.12.

is, however, important welfare functions are entrusted to the States, the state governments have a gap between their revenue resources and responsibilities for expenditure, which is sought to be corrected partly through arrangements of tax-sharing and partly through allocation of grants-in-aid from the Centre. Past experience, however, shows that the devolution of Union taxes and grants-in-aid of State's revenues may have helped in resolving to a certain extent, the problem of maladjustment of resources and needs between the Centre and the State's Governments but they have not been of much assistance in removing the regional disparities in income and the needs of different States. The States should, therefore devise more elastic revenue resources from their own tax system.

In a developing economy both production and prices rise and money income thus grows fast. This calls for devising a tax and revenue system which will favourably respond to changes in money incomes and thus reduce the need for additional tax measures. The income elasticity of a tax is measured by the ratio of the percentage change in the normal tax yields, excluding additional taxation, during a given time period to the percentage change in income. Since the land revenue in Uttar Pradesh has not been revised for a long time and is not progressive according to the size of holdings or productivity it has got the least elasticity in the State taxes. The Lakdawala

Committee on State taxation shows by adopting regression method that the correlation co-efficient between the tax yield and the state income is quite high (significant at 1 per cent level) for all the taxes except in the case of land revenue and purchase tax on sugarcane. The direct taxes on agriculture which are not sensitive to income had been mainly responsible for slurrishness of the aggregate tax yields during the period 1960-61 to 1971-75, its percentage to States own tax revenues falling sharply from 38.7 to 10.2 per cent.²³ On the other hand sales tax and excise duties have become important sources of revenue :

Table No. 5
Relative Importance Of Land Revenue

Tax	Percentage share of the tax in total revenue	
	1968-69	1973-74
Land Revenue	18.3	11.3
State Excise	18.3	15.4
Sales Tax	31.4	37.8
Motor Taxation	13.1	15.6

Source : Finance (Budget) Department, Uttar Pradesh.

²³Uttar Pradesh Budgets, Finance Department.

According to a recent study of Reserve Bank of India,²⁴ this relative shift in the pattern of state finances seems to be an all-India phenomenon, with variations in the degree and importance of the three taxes: land revenue, sales tax and excise duties. For instance, while the average share of sales tax in the States' own tax revenues in 1974-75 is expected to be 51.2 per cent, in Maharashtra and Gujarat collections from this tax are expected to form more than 61 per cent of the States' own tax revenues and in respect of Himachal Pradesh and Jammu and Kashmir, this proportion is as low as 26.5 per cent and 28.3 per cent, respectively. The most disquieting feature, according to this review for the fourth plan period was the inadequacy of measures to mobilise additional resources from the agricultural sector. While additional yield from agricultural income tax was only Rs. 2 crores, there was a negative contribution of Rs. 32 crores from land revenue :

Inter - State Disparity :

The per capita incidence of state taxes in Uttar Pradesh increased from Rs. 7.83 in 1960-61 to Rs. 19.49 in 1973-74. The State mopped up about 3 per cent of its net domestic product during 1961-73 against 4 - 5 per cent mopped by all the states taken together.²⁵ It is but

²⁴R. B. Bulletin Sept, 1974.

²⁵See Annexure 6/3.

natural that with the same tax system, even regarding state tax revenue, per capita incidence should be higher for richer States. However, the decline in this percentage in Uttar Pradesh (from 3 percent to 2.7 per cent) inspite of additional tax efforts needs re-thinking over this complex problem.²⁶ The trend for all States taken together was otherwise^{and} rose from 3.6 per cent to 4.8 per cent.

Level Of Prices :

The level of prices constitutes an important factor affecting the problem of resources. If there is a rise in prices, there will be shortfalls in the achievement of physical targets. If the tax receipt is assumed as 3 per cent of the State income in a base year, as is the case at present in Uttar Pradesh, the State tax revenues as percentage of State income at various levels of economic growth and price rise is shown in table 6 below:

Table No. 6

State Tax Revenues As Percentage Of State Income (With no Changes in tax Structure and when the proportion in the base year is 3 per cent)

Price rise percentage	Rate of Growth in real income (Percentage)					
	0	1	3	5	6.5	10
1	2	3	4	5	6	7
0	3.00	3.01	3.03	3.05	3.07	3.10
3	2.92	2.94	2.96	2.98	2.99	3.02
5	2.88	2.89	2.91	2.93	2.94	2.97

Source : Taxation Enquiry Committee, Uttar Pradesh, 1974. Ch. II.

²⁶ Taxation Enquiry Committee, U.P. 1974, p. 2.25.

The table C shows that as high a real growth rate as 10 per cent if combined with a 5 per cent price increase will bring about a reduction in tax revenues as percentage of State income. Various plans in Uttar Pradesh since 1960-61 have witnessed price rises of more than 6 per cent (index no. of wholesale prices rising from 100 (1960-61) to 206.7 in 1968-69) and real economic growth rate of 3 per cent and less. This explains that inspite of additional taxation (of course in the non-agricultural sector), as a percentage of State income at current prices, the State tax revenues have not risen. This analysis clearly shows that the direct taxes on agriculture have been totally inelastic as a source of tax revenue and there is a prima facie case for linking land revenue with rise in prices and productivity in the agricultural sector. The industrial States in India (like Maharashtra, Gujarat and West Bengal) have relied heavily on indirect taxes and certain States like Kerala, Assam and Mysore have tapped resources from the agricultural income tax, but due to lack of industrial development and poor assistance received from the Centre in the earlier five year plans Uttar Pradesh has been facing a widening gap between the normal revenue resources and its expenditure commitments. The State Government used the indirect taxes as the main instrument of additional taxation since the beginning of the third five year plan. The following table gives tax revenues as percentage of total income in U.P.

Table No. 7Tax Revenue As Percentage Of State Income

Year	Uttar Pradesh		
	Total tax Revenue	Direct tax Revenue	Indirect tax Revenue
1	2	3	4
1960-61	3.2	1.7	1.5
1965-66	3.2	1.3	1.9
1968-69	3.3	1.1	2.2
1969-70	3.2	1.0	2.2
1970-71	3.4	1.1	2.3
1971-72	3.0	0.7	2.3
1972-73	2.7	0.5	2.2

Source : Uttar Pradesh Taxation Enquiry
Committee 1974, p. 2.26.

Abolition Of Land Revenue :

The strategic role of agricultural output during the early phase of economic development demands all possible efforts to increase agricultural productivity. This policy has been underlined in the successive five year plans in Uttar Pradesh, and has now resulted in higher yields per acre and per capita incomes for practically all size groups of land under cultivation. Attempts

have been made by several states in recent years to introduce progression in taxation of agriculture through exemptions of land revenue on small holdings.

As a matter of fact the issue of land revenue abolition gained ground in certain States which had other substantial sources of revenue (being industrially developed) and which were thinking to substitute an agricultural income tax for the existing land taxes because of smaller yields and comparatively large administrative expenditure. The higher receipts from agricultural income tax in the case of Assam, Kerala, Madras and Mysore were attributable to plantations, and in Uttar Pradesh the yields from this tax were near about 1 to 1.5 crores only. In Uttar Pradesh no serious efforts were made to evolve a progressive taxation of agricultural incomes in the post-Independence period, and the rate of levy has been unrelated to the size of holding and its net product. Instead of reconstructing the land revenue system to meet the current needs of development planning, unnecessarily an exemption limit in terms of acreage was prescribed which seems to be politically motivated devoid of any sound economic justification.

Land revenue has always been a 'mass' tax with a broad - based coverage. In a democratic society endeavouring to establish a socialistic pattern of economy, it is important to provide a sense of participation to the people at large in the national development endeavour.²⁷ Both

²⁷Johl : Agricultural Taxation in a Developing Economy, A Case of India: July/Sept. 1972, IJAE, Vol. XXVII. No. 3, p. 13.

the recent taxation enquiries in Uttar Pradesh gathered the impression that most of the farmers did not particularly value land revenue exemption. On the contrary, they regarded annual land revenue receipts as concrete evidence in their possession of land ownership. The 'Jot bahi' provided to the cultivators has less value to them since these are seldom kept up-to-date and in the minds of the farmers the importance of land revenue receipts has not diminished.²⁸

Equity considerations also do not warrant a reduction of tax burden on the rural sector. The excess of tax incidence on non-agricultural over agricultural households in the higher income groups has been adequately proved earlier. In the case of lower income groups, the inter - sectoral disparity in tax burden is less pronounced. Being a non-monetized sector the rural sector is mostly outside the ambit of indirect taxes, particularly the small and marginal farmer below 5 acres of holdings. Recent studies²⁹ bear this out that the lower income group in the agricultural sector is undertaxed as compared to his counterpart in the non-agricultural sector. Since the studies referred to above relate to 1950s, the imbalance

²⁸Uttar Pradesh Taxation Enquiry Committee, 1974 -- Ch. IV, p. 66.

²⁹(i) I.S. Gulati : Resource Prospects of the Third Five Year Plan - pp. 132-34.

(ii) Ved P. Gandhi : The Tax Burden on Indian Agriculture -- p. 200.

between the lower income groups of the two sectors must have increased very much more because of the growing importance of indirect taxes, which generally fall on the consumption of non-agriculturists. We have already referred to the excessive reliance of the Uttar Pradesh Government on the levy of indirect taxes like sales tax, excise etc. for the financing of its plans since 1961-62.

Not going into this unfruitful controversy as to whether the incidence of taxes in the case of lowest deciles in rural or urban sectors is more it can be safely concluded that the total impact of the agricultural taxes on the lower classes in rural areas is hardly of any significance. The cultivator in Uttar Pradesh is at present, on an average, contributing to the State nearly 1/100th of the gross produce value as against 1/8th of the said value in 1940s.³⁰ Since it is a nominal tax, it should be continued in the interest of ~~maintaining~~ maintaining the 'mass' base of a familiar tax and thus not allow a large chunk of the rural population lose the pride of participation in the national effort without a financial relief of any significance. On the other hand the Uttar Pradesh Government loses 10 - 12 crores of rupees by this act of exemption which is a substantial amount for a State which is hard pressed for resources for development. The possibility of sharp progression in land taxation rates is much less in comparison to urban incomes especially after the imposition of lower land ceilings. Even if we rely for

³⁰ UP Taxation Enquiry Committee, 1974, Ch. IV. pp.17-18.

much more proportion of the total revenue demand from the upper segment of 10-15 per cent of large land holders, resource mobilisation and inter-sectoral equity demands that all landholders should contribute to the exchequer even if it be as insignificant an amount as it exists today.

Our investigation in Allahabad district also gave a fresh angle to this controversial problem. The lowest category of farmers in our sample of households belonged to 0 - 2.5 acres in size. Out of 24 such households we found that at least 15 - 20 of them earned the major portion of their monthly incomes from non-agricultural occupations in the urban areas, whether in railways or factory or as casual labourers in the city. They paid their revenue from these side incomes and need not sell their foodgrain production for this purpose. It also seems fair that if the State has given right to cultivate a piece of land to an individual, he should bear a small tax burden in the same way as an urban household owner of a small plot of land has to do.

Social Justice To Weaker Sections :

An absolute rise in income need not justify an absolute rise in tax. Farmers in India have suffered for centuries under an inequitous land tenure system and must be allowed to improve their standard of living. From the point of view of public finance, it is a good policy to let people improve their standard of living and enable them

to emerge from a non-monetised economy into a monetised economy so that they by increasing aggregate demand lift up the macro savings and investments. This viewpoint makes us suggest a policy wherein more than 80 per cent of farmers of below 5 acres³¹ will be out of our proposals for increased tax burden and a gradual element of progression will be introduced for the higher sizes beginning from 5 - 7.5 Acres as the basic strata in the new tax structure. The rising average rate of tax in the non-agricultural sector is explained by a rising marginal rate. From the point of view of financing economic development, it is the marginal rate of tax which plays a more crucial role. To meet the new concern in favour of the marginal and non-viable units of cultivation we suggest that for some more years to come they may be charged the older rate of revenue. However, to raise the State's incremental saving ratio³² which is a key determinant of growth the middle and large farmers should be subjected to a progressive land tax which is broadly comparable to similar income groups in the non-agricultural sector.

³¹Census of Holdings 1970-71.

³²Ragnar Nurkse : Problem of Capital Formation in Under-developed Countries, pp. 142-144.

It may also be thought in a longer perspective of planned development of Uttar Pradesh whether we want to perpetuate the tiny and fragmented holdings for ever. Is it not possible to reorganise our rural society on a co-operative basis particularly those parts of eastern zone which are densely populated.³³ This occupational re-structuring with more non-agricultural rural employment will itself require funds. We suggest that instead of crying for an out-dated demand for abolition of land revenue on uneconomic holdings it is much more desirable to earmark the funds so collected to local village institutions for improving the lot of the small farmer or undertaking many other possible decentralised labour intensive schemes of land development and construction of capital assets. The collections of the Land Development Tax levied in lieu of the loss sustained by abolition of land revenue during 1973-74 have been Rs. 13.59 crores. The Act provided that 60 per cent of the collections would go ^{to} the Uttar Pradesh Rural Development Fund for being utilized on irrigation, medical and public health, construction and maintenance of roads, electrification and drinking water supply. Of the remaining 40 per cent, 15 per cent is allocated to Zila Parishads, Rs. 50 lakhs to the State Electricity Board and the rest to the Kshetra Samitis and the Gaon Panchayats.

³³Uttar Pradesh Government is planning to give loan for constructing tube-wells on co-operative basis -- which seems to be a step in the right direction.

The exemptions cannot be justified on economic or financial grounds and they render no social justice to the community or the individual cultivator. It has been in the fitness of things that the State Government has recently withdrawn the exemption and has also announced more progressive taxes on the agricultural incomes to meet the gap of resources for the next Five Year Plan. Land Revenue still remains a big component of the earnings of the States. It would, therefore be unwise to abolish this important source of revenue. To conclude the discussion with the views of an exponent of Public Finance :

"Land tax is undoubtedly a good tax for rural conditions in developing countries. As a tax it is not a disincentive and it can be made to cover all types of land exploitation..... The world is strewn with obsolete and ineffective land taxes, and increasingly with countries which have given them up rather than face the difficulties of rehabilitation."³⁴

³⁴U. K. Hicks : "The Contribution of Rural Taxation to Development". Development and Change, Vol. I, 1969.

CHAPTER VII
REFORM OF AGRICULTURAL TAXATION
(Resource Mobilisation With Equity)

The two major defects of agricultural taxation in Uttar Pradesh have been (i) its complete lack of elasticity and (ii) its inability to follow the principle of ability to pay in taxation in regard to intersectoral and inter-group equity. The revenues under a reformed flexible land tax must clearly be responsive to price and production changes. If we wish to expand the tax base and yield of the tax, the basis of taxation should be related to agricultural productivity. Between the rate structure and the tax base, the base is more crucial to the elasticity of a tax.¹ The resource mobilization and equity objectives require that part of the increase in agricultural income should be diverted to public investment, for the over all development of the backward economy of Uttar Pradesh.

The Taxation Enquiry, Commission 1953-54 thoroughly discussed the possibility of maintaining 'land' as the base of taxation and still keep the base as far as possible current. The Commission recommended

¹ Sahota G. S. : "Indian Tax Structure and Economic Development". p. 52.

resettlement based on decennial assessment of land. Above all the Taxation Enquiry Commission emphasised indexation of the land revenue with the price level of the agricultural commodities which in the large majority of the instances could be based on the predominant crops of the region. In view of the prices paid by the farmers for the various inputs "the significant factor in determination of the incidence of the land revenue demand is the change in the net income or net produce or profit of the cultivator and not the value of his gross produce".² In the wake of higher productivity in agriculture in sixties and continuous favourable trade to the farmer the land taxes in Uttar Pradesh have become quite out of date either in regard to the paying capacity of the farmer or to meet the growing resource demand of the state for development.

Review Of Certain Proposals :

In the post-Independence period attempts have been made by several States to introduce progression in taxation of agriculture by adopting various measures. Some of the States like Punjab, Haryana and Rajasthan in the north and Maharashtra and Andhra Pradesh in south-west have imposed surcharges and special charges on the

²Report of the Taxation Enquiry Commission 1953-54, Vol. III, p. 228. Govt. of India.

land revenue payable by holdings above a certain size.³ The choice in favour of surcharge arises because of the practical difficulties inherent in assessing accurately the agricultural incomes.⁴ The Uttar Pradesh Taxation Enquiry Committee (1968-69) suggested a graduated surcharge on land revenue and it was expected that the recommendation would fetch additional revenue of rupees 8.25 crores a year to the State Government. The smaller farmers below five acres were exempted from the surcharge and among the larger farmers element of progression was introduced in such a way that the additional burden on Thumidhars and Sardars should be the same.⁵ However, these recommendations were not implemented. On the contrary land revenue on holdings upto 6.25 acres was abolished in July 1970.

The simplest way of raising more revenue through direct taxation of agriculture would be to levy surcharges on land revenue, making its incidence a multiple of what it is now. The difficulty, however, is that the land revenue now levied does not adequately

³For details see "Report of Committee on Taxation of Agricultural Wealth and Income" Table II.

⁴Angarish A. C. : "Direct Taxation of Agriculture in India". p. 200.

⁵Uttar Pradesh Taxation Enquiry Committee Report 1968-69, p. 33.

reflect differences in the productivity of land. Amongst the districts of the plains, the incidence varies considerably from Rs. 2.11 in Jhansi to Rs. 9.17 in Farabanki. The higher incidence of land revenue in some of the districts does not appear to be due to better agricultural productivity.

Table No. 1

Per Acre Net Agricultural Value and Incidence of Land Revenue

Name of district	Per acre net Agricultural value (Rs.)*	Present incidence of land revenue**
Muzaffarnagar	561	5.03
Fulandshahr	460	5.67
Foradabad	363	5.69
Conda	279	5.37
Azamgarh	333	5.01
Unizabad	365	5.29
Deoria	394	3.83

Source : * Economics & Statistics Division,
Uttar Pradesh,

** Board of Revenue.

The per acre incidence of land revenue is highest in Aizahad district, where the per acre net agricultural value is appreciably less than the districts Muzaffarnagar and Bulandshahr. The Taxation Enquiry Committee rightly observes there would be many more inequities at a lower than district level or among holdings within the same size group which this table cannot reveal.⁶ The reasons for this disparity in incidence owe their origin to the Zamindari System in Uttar Pradesh. The amount now payable as land revenue is simply the rent that the tenant or sub-tenant was required to pay under this system. In cases where the intermediaries chose to retain some land for sir and khudkasht had a different rates and for ~~thumidhars~~ the revenue rates were reduced to half. Under such circumstances the levy of a surcharge on the existing rates could only make this form of taxation more regressive than it was today. The ineffectiveness of the surcharges whether judged in terms of equity or the additional revenue raised is borne out by the following observation of a recent expert committee:

"Though agricultural income per capita in the Punjab and Paryana is about twice as high as in the rest of India, the total yield from land revenue, surcharges and special charges,

⁶ Taxation Enquiry Committee/- ^{U.P. 1974} Ch. IV, p. 51.

*See Annexure 7.1.

cesses on commercial crops etc. amount now to less than 0.4 per cent of the net domestic product originating in agriculture in these states compared to nearly 1 per cent for the country as a whole."⁷

Graduating The Existing Rate Structure :

Various suggestions have been made with regard to the slabs of land brackets and rate schedule for introducing progression in land tax system. Some of these views have become of little practical significance with the new seed-fertilizer revolution in agriculture and a new input consciousness in the average farmer of Uttar Pradesh, together with the emphasis in state land policy to curtail the level of ceiling on holdings (vide ceiling Act 1973). Little's⁸ scheme with 27 land brackets, ranging from a tax free 0-5 acres to above 30 acres group, will make the tax structure very complex besides its major reliance on holdings above 20 acres which may be very few in numbers after the implementation of the new land ceilings. Similarly Gulati's suggestion reveals two main limitations: First slab is too high to ensure large receipts to the exchequer, as majority of holdings in our State are less

⁷Report of the Committee on Taxation of Agricultural Wealth and Income : p. 10, Ministry of Finance, Govt. of India. (Annexure 7.3 for details)

⁸Little I.N.D. : Tax Policy and the Third Plan, Institute of Economic Growth 1959, Mimeographed.

than 20 acres size, and Secondly, his progressive rate structure does not take into consideration various kinds of soil-climatic differences.⁹

Khusro has elsewhere suggested a three-tiered land revenue system with only three slabs or land brackets for the sake of simplicity of administration and of convenience of understanding.¹⁰ (i) Holdings upto the size of 5 acres should bear the land revenue currently prevailing i.e., about Rs. 3 per acre on the average (that he has calculated). He rules out increment of rates for these land brackets because holdings below 5 acres do not fulfil the "norms of efficiency and surplus-generation." (ii) In the size-groups above 5 acres but below 10 acres, the rate of land revenue can be increased to no more than Rs. 5 per acre. (iii) Above the 10 acre size, land revenue may be charged at Rs. 10 per acre, and for all higher size groups the same rate should prevail. Khusro's cut-off points are practical, broadly dividing the farm sector into three broad groups of subsistence class, middle farmers or economic holdings and big and large farmers with substantial marketable surpluses as the farm size increases in general.

⁹Gulati I. S. : "Resource Prospects of the Third Five Year Plan 1960, pp. 73-76.

¹⁰A. M., Khusro : "Taxation of Agricultural Land, A Proposal", Economic and Political Weekly, Feb. 1963, p. 279.

Of course there is no mention of soil - irrigation conditions which govern the productivity of land and during last decade the new qualitative changes in the techniques of production in the country-side have made his rates suggested as quite low as compared to what may be thought as fair.

New Approach to Agricultural Taxation :

Though the need for a progressive taxation of the agricultural sector is self-evident in a state that is mainly agricultural in character, the form and incidence of such taxation have to be related to the objectives of economic policy. The principles to be laid down for evolving a new land taxation policy should be consistent with the assumptions and objectives of the development process and the social and political structure in which it has to function. The current situation in Uttar Pradesh, shaped primarily by economic pressures and resource scarcity has focussed attention on the need for tapping the agricultural sector as is evident by recent levy of the exemptions of land revenue and higher differential land development tax on Phumdahars and Sirdars, in obedience to the recommendations of the Uttar Pradesh Taxation Enquiry Committee which has reported recently on the aims of State Tax Policy and resource mobilisation. The Committee observes :

"An inequitable tax can only be found tolerable as long as its burden is light. The burden can only be substantially increased when the inequities are remedied. A new settlement, is, therefore, a prerequisite for a substantially more productive land revenue system."¹¹

Potential Productivity :

A rational approach to make the land revenue an equitable and progressive tax is to relate it to productivity and size of the operational holding. In the land settlements in Uttar Pradesh the entire agricultural land was carefully classified according to productivity and the liability to tax differed, with different classes of land. However, other factors like the type of tenure, caste considerations* also came in while determining the land revenue incidence. This non-economic treatment of the problem and long gap in resettlements have made the present land revenue incidence devoid of any correlation with the productivity of the land holding. Our purpose will be adequately served if we could find a reasonable basis for assessing potential productivity with minimal scope for arbitrariness in administration. This approach has the

¹¹Uttar Pradesh Taxation Enquiry Committee 1974, p. 4.51.

*The rents of Brahmins, Chhatri's and Kayasthas, who were known or discovered at inspection to be enjoying a regular privilege in rent, were kept separate as the privileged castes; Report of Land Settlement, Allahabad District, 1915.

additional advantage that it leaves unimpaired the incentives for further effort, improvements and investments in land. The question of the elements of agricultural productivity has been recently analysed in a scientific manner by the Raj Committee which observes :

"if we take into account (i) the soil-climatic differences between sufficiently small homogeneous tracts (ii) conditions of water supply for each plot of land, and (iii) the crops grown on each plot of land, it seems to us that we shall have taken into account the major elements of productivity of land and thus brought all landholdings to a comparable basis."¹²

The most crucial step involved in levying a tax based on the productive capacity of a holding is the delineation of tracts and areas, which are markedly different from each other in regard to soil and climate, but sufficiently homogeneous within to provide a reasonable objective basis for providing norms of gross output per acre for different crops in each such tract or area. In view of the need for a "Rapid Settlement"¹³ in most of the regions in Uttar Pradesh, the revenue district should be divided into fewer assessment circles than is advocated by the

¹²Report of the Committee on Taxation of Agricultural Wealth and Income - p. 25.

¹³Uttar Pradesh Taxation Enquiry Committee, 1974.

Raj Committee. We observed in the course of our investigation of the rural areas in Allahabad district that with the extension of irrigation, chemical fertilizers and improved seeds, there was no observed simple relation between soil quality and output say between Ganagar and trans-Jamuna tracts which were otherwise regarded as different Geo-physical regions of the district.

The agricultural holdings tax suggested by the Raj Committee is a compromise between the principles of income tax and land revenue as it hardly pays any regard to actual income of the farmer from land, nor to his actual expenses.* A disadvantage of the tax base on potential ability to earn is that it cannot be as progressive as a tax based on actual incomes. Adverse natural factors may lead to wide variations between actual and potential incomes in specific years or regions of the State and sharply progressive rates may become burdensome and oppressive. However, a reasonable degree of progression could be introduced in the land revenue system without causing adverse effects on productivity and making the tax elastic to income and price changes.

For determining the average gross output we should take a time period which takes into account the good and bad years of an agricultural cycle while at the same time reflecting the spurt in production of crops in

* But the scheduled of rateable values will have to be revised every year which we think is not practical with present Revenue Administration set-up.

the recent years. Both these considerations taken together suggest to us 5 - 7 years as a sufficient time period which will provide us with moving 'norms' of productivity. When valued on the harvest prices pertaining to the last three years the value of the produce in terms of money could be determined.¹⁴ After finding out the net produce the State can make a fresh Land Settlement for 10 - 15 years. Further the land revenue should be subject to proper indexation preferably with the yearly prices as calculated by the State Planning Institute periodically.

Taxation And Optimum Land Utilisation :

The issue of land utilisation admits of separate approaches from the national and the farmers' points of view. However, a Conference held in 1959 on Taxation and Optimum Land Utilization¹⁵ recommended making land revenue progressive with the size of holdings. In our discussion of the structure of land holdings¹⁶ we have observed that the optimum land utilisation involves the abolition of the practice of leasing of land on which the system of share-cropping is based. If the direct taxation

¹⁴ Both Raj Committee and Lakdawala Committee have suggested 3 yearly prices average but the former recommends a 10 year average for production which may not reflect the recent "Green Revolution" in the countryside.

¹⁵ Indian Journal of Agricultural Economics, XV, No. 1 (Jan. - March, 1960).

¹⁶ Refer to Ch. IV.

on progressive lines increases the labour intensity of farming by breaking some larger farms and increasing small owner-operated farms ensuring fuller utilisation of family labour it will have a healthy impact on the farm economy of Uttar Pradesh. In this context it is useful to remember that since 1951, South Korea has levied its land income tax on the basis of a standard assessment keyed to the average or normal productive capacity of a region; the tax specifically exempts output which exceeds the standard assessment.¹⁷

In dealing with the problem of optimum utilisation of scarce land resources in Uttar Pradesh one of our assumptions is that the public sector would shoulder the primary responsibility for providing the social and economic overheads of development. Delivering the Ramaswami Memorial Lecture, Dr. P. V. Raj opined :

"The external economies associated with investment in irrigation, soil conservation, education, scientific research, etc. are so large that this responsibility is particularly great in relation to agriculture. One has, therefore, to keep in mind that against the

¹⁷W. Heller, "The Use of Agricultural Taxation for Incentive Purposes", in "Agricultural Taxation and Economic Development". Conference Papers, pp. 222-44.

revenue that might be collected from taxation of agriculture has to be set the reverse flow of public expenditure in this sphere, and that the net balance could be still in favour of agriculture."¹⁸

Progressive Rates :

We have observed earlier that the beneficiary of the agricultural prosperity has been the farmer who has marketed his surplus produce with rising agricultural prices and terms of trade favourable to the extent of 12 per cent during the period since 1961-62.¹⁹ The principle of progression has however, not governed the fixation of land revenue at any time in Uttar Pradesh and the rate of levy is, therefore, unrelated to the size and productive capacity of holdings. The case for introducing a significant degree of progression in the taxation of agriculture becomes strong considering the concentration of agricultural income and wealth. Assuming that distribution of farm incomes roughly conforms to the distribution of operational holdings, the following table indicates the extent of inequality in income distribution in the farm sector :

¹⁸K. N. Raj : Direct Taxation of Agriculture, Lecture delivered on March 12, 1973, under the auspices of the I.S.I. and the Delhi School of Economics, ,

¹⁹Quarterly Bulletin of Statistics, Uttar Pradesh 1974. Table 10.6

Table No. 2
Percentage Distribution Of Area Operated By Size Class Of
Operational Holding In Uttar Pradesh In 1970-71

Size Class of Operational Holding (Hectares)	Percentage of	
	Area Operated	No. of Holdings
Below 1	20.64	66.65
1 but below 2	20.51	17.09
2 but below 3	14.82	7.19
3 but below 4	10.30	3.52
4 but below 5	7.51	1.98
5 but below 10	16.08	2.83
10 and above	10.14	0.74

Source : Agriculture Census 1970-71.

From table no. 2 it can be seen that there are about 10 per cent of holdings of more than 3 hectares size which own about 44 per cent of cropped area. When the distribution of land is very unequal, the external economies created by public expenditure on rural projects are likely to widen rather than narrow the disparities in income and wealth, which is likely to run counter to one of the major social goals of development. It is proposed that the major impact of the new progressive rates of land revenue could be directed at the top decile of the operational holdings, and the existing land revenue structure

retained or modified according to the circumstances of each region/district of Uttar Pradesh for the smaller holdings

Date Structure - An Analysis :

Agricultural sector is of great importance in an economy like that of Uttar Pradesh. A large part of the surplus required for economic development will have to come from agriculture until the stage is reached when industry is able to contribute a major portion of the State income and the percentage of work force engaged in agriculture is reduced to say 65 per cent as in the neighbouring State of Haryana. The Uttar Pradesh Taxation Enquiry Committee (1974) has recently recommended direct taxation of 3 per cent of the net produce from agricultural incomes as is currently being contributed by the non-agricultural sector of the economy in India.²⁰ The Committee further recommends marginal surcharges upto 300 per cent as follows:²¹

²⁰UP Taxation Enquiry Committee, Chapter IV, P. 61.

²¹For details see Annexure 35, Ch. IV, "Taxation Enquiry Committee Uttar Pradesh, 1974."

Table No. 3

Basic Land Revenue	Rate as percentage of Basic Land Revenue
First Rs. 60	100 per cent
Next Rs. 40	200 per cent
Next Rs. 100	300 per cent
Balance	400 per cent

Working upon these rates of taxation it has been estimated that if a new rapid settlement is made on the basis of 1970-71 produce value, the land revenue demand in Uttar Pradesh would have been Rs. 49 crores as compared to an average demand of about Rs. 22 crores during last 10 years. This doubling of the revenue demand estimates is an encouraging feature of the recommendations of the Lakdawala Committee which are favourably being considered in the State headquarters. The Uttar Pradesh Government has already announced its decision to re-impose land revenue on all holdings irrespective of its size taking hints from the suggestions of the aforesaid committee. The new composite rates of land taxes inclusive of the land development tax are also being re-shaped into a progressive framework to yield substantially more revenue to the exchequer.*

*See Annexure 7.2.

Criticism :

However, it seems that due to shortage of time at its disposal this expert body has not been able to collect the latest production statistics of major crops in Uttar Pradesh. They have used the data of 3-5 years back collected from the State Income Estimates of the Economics and Statistics Department. This has led to a low base structure and rates of surcharges have been inflated too much to make the doubling of revenue collected from these taxes which was probably the basic consideration before the Committee in its recommendations, in the context of the Fifth Five Year Plan in Uttar Pradesh. For holdings of sizes 20 Acres and above, a $3 \times 4 = 12$ per cent rate of the net product is suggested which has hardly any practical significance for State finances in view of the new ceilings act.²² If there are certain joint cooperative farms or sugar plantations being affected by such an incidence, we would suggest that land revenue rates should in no case exceed 8 - 10 per cent of net incomes for any of the farm holding groups.

In our search for surpluses in the agricultural economy of Allahabad District we observed that being a relatively backward district agriculturally it was not

²² The Uttar Pradesh Imposition of Ceiling on Land Holdings (Amendment) Act, 1972, in the case of a tenure-holder having a family of not more than five members, 7.30 hectares of irrigated land.

feasible to levy more than 4 per cent rate on the net produce on the most affluent section of the farming population the basic rate being $1\frac{1}{2}$ to 2 per cent as against the recommendation of Taxation Enquiry Committee for 3 per cent for state as a whole. That gave us sufficiently progressive incidence per acre for all the three tracts of Allahabad the rates varying from Rs. 5 to Rs. 20 per acre. It is possible that for more productive districts of Uttar Pradesh like Meerut and Muzaffarnagar the rates may go higher say upto twice this figure. That is 8 per cent or 10 per cent even. For cash crops extra surcharges are suggested by us besides higher water rates on crops like sugarcane.

Non-Food Crops :

With the growing demand for and the consequent popularity of non-food crops that are more remunerative, some of which can be even grown in soil that would be regarded as inferior for cereals, the tax policy needs special considerations. Suggestions have been made for putting a surcharge on holdings above 5 - 10 acres under commercial crops by several economists.²³ We are broadly in agreement with Prof. Khusro that this surcharge will involve a continuous check-up of the nature of crops

²³(i) K.N. Raj : Resources for the Third Plan : An Approach, The Economic Weekly, Annual No. Jan., 1959.

(ii) Ayodhya Singh : Mobilisation of State Resources from Agricultural Sector, Vide, "Mobilisation of State Resources" Ed. M.D. Joshi, p. 133.

grown from season to season and needs an extra administrative cadre which may not be available.²⁴ However, the farm management data that we collected at Allahabad suggests to us that potato crops could easily give a saving of Rs. 1000 per acre. In the Gangapur region of Allahabad district even a 5 - acre well irrigated farm from a tube-well growing non-food crops could earn 4 - 5 thousand net incomes which is very near to the income tax paying limit in the urban sector and hence deserves an extra surcharge.

Another point which needs examination (which is indirectly also related to tax policy for commercial crops) is whether irrigation facilities should not be made self-supporting. In certain States irrigation is regarded as insurance against drought and famine while in others it is provided on an intensive scale and a cultivator can get as much water as his crop may require. In either case there does not appear any justification for a subsidy when the States have to invest heavily on the provision of these facilities. In respect of irrigation schemes, the losses continuing since 1956-57 amounted to Rs. 3.28 crores in 1959-60 and Rs. 3.02 crores in 1960-61²⁵, which need a reappraisal and change of policy.

²⁴A.N. Phusro : Taxation of Agricultural Land, The Economic Weekly, Feb. 1963.

²⁵P.D. Hajela : General Approach to Resource Mobilisation in India with special reference Uttar Pradesh, *Ibid.*, p. 81.

Agricultural Incomes And General Income Tax :

The need to tax agricultural incomes on a progressive basis has led certain economists to suggest that there should be an agricultural income tax supplementing the tax proceeds of the usual land revenue. It is argued that though the land revenue was originally meant as a levy on the incomes of agricultural produce, it no longer possesses the attributes of an income tax and is devoid of any flexible moving base for tax incidence.²⁶ The one practical possibility of such a proposal is that it would co-ordinate the functioning of a progressive land revenue rate structure with the general income tax of the country. It is believed that by such a dual system of taxation on the farm sector the political handicaps of resource mobilisation could be reduced to some extent.²⁷

However, if we carefully examine the structure of holdings and the agricultural income distribution in Uttar Pradesh we could very well appreciate that owing to a vast number of holdings below 10 acres the agricultural income tax would be limited in its applicability only to a small percentage of rural population. Besides, there would

²⁶F.T. Mathew : Proposals for an Integrated System of Agricultural Taxation -- Proceedings of a Seminar on Taxation of Agricultural Land and Income, Artha Vikas, July, 1969.

²⁷Ved P. Gandhi : Taxation of Farm Holdings : A comment - The Economic Times Annual 1974, p. 139.

be a lot of practical difficulties in introducing the income tax in the agricultural sector particularly assessing of cost and gross incomes. The calculation of the cost of inputs like water used or labour employed in different activities of agriculture are difficult to handle. As regards the income, the prices of all agricultural commodities fluctuate, sometimes very sharply, and no reliable data will be available with regard to the time when a farmer sold his produce and how much and at what price.²⁸ In a seminar on taxation of Agricultural Land and Income²⁹ most of the participants felt that the time was not yet ripe for the introduction of an agricultural income tax on an extended scale.

Collective Use Of Revenues :

So long as planning is accepted as an instrument for rapid economic growth, there will be a need for mobilizing tax resources from all sectors of the economy. The cultivating class will get psychological motivation for extra tax burden if there were a large degree of correspondence between taxes and the beneficent expenditure which they make possible. The Taxation Enquiry Commission thought

²⁸Uttar Pradesh Taxation Enquiry Committee, 1968-69 p. 29.

²⁹Proceedings of a Seminar on Taxation of Agricultural Land and Income, Artha-Vikas, July, 1969, p. 197. Vol. V, No. 2.

that if taxes were levied to enable the community to do things collectively the "limit of taxable capacity would be higher."³⁰ The benefits should actually flow from taxes and there should be clear appreciation of the plans of development formulated by Government. We find several thousand crores of rupees already invested in the Public Sector Projects in Uttar Pradesh and other States of India and nearly all running at losses and progressive taxation is resorted to in making good the adverse balance. Since political considerations have mingled with the economic in the current opposition to a progressive land taxation, more effective use of public funds ensuring a better return on investment of tax proceeds could at least diminish people's unwillingness to suffer an increase in tax burdens.

We believe that a reasonable degree of progression can be introduced in the land revenue system of Uttar Pradesh and it can also be made more price and income elastic with a timelag. In principle an agricultural income tax is ideal. It is because of the difficulties of its administration that several variants like land holdings tax or progressive land revenue are advocated. A land tax must be simple and capable of being properly

³⁰ Taxation Enquiry Commission Report - Vol. I, p. 151.

administered. Even a good progressive tax badly administered may do incalculable harm. Land revenue with a moving base which reflects the potential faculty of the cultivator to pay, has no adverse influence on willingness to work, save or invest. As an adhoc and interim measure the idea of surcharge on land revenue on holdings above a certain minimum might be given effect to. However, any permanent reform, based upon the existing rate structure would be defective.

The land revenue structure in Uttar Pradesh has many complexities and historical complications. It is inequitable between classes and regions and comparable income groups do not bear the same incidence. Above all since the distribution of land is very unequal the increase in income in the agricultural sector is not evenly distributed in that sector. Rising productivity and shift in terms of trade in favour of agriculture of the kind witnessed in the last decade have much more benefited the larger farmers since the proportion of the produce marketed tends to be higher for the larger holdings. A reformed land tax should attempt to remove these defects. It should be levied on the income that an average farmer is expected to obtain from the land he owns, given the soil productivity, the types of crops grown and means of assured irrigation. Based on these objective characteristics and provision

of more frequent land settlements and indexation to parity prices, the land revenue system in Uttar Pradesh could be an effective fiscal device to uplift the stagnant economy of Uttar Pradesh which is much behind some of the advanced states of India.

CHAPTER VIII

ECONOMIC PROFILES OF ALLAHABAD DISTRICT

The district of Allahabad is one of the boundary districts of the Western region of Uttar Pradesh, which is the eastern part of the great Gangetic plain traversed by the rivers Ganga, the Yamuna and the Ghagra and their numerous tributaries. The population and area of the eastern region are 331.87 lakh persons and 0.86 lakh square kilometres respectively, constituting about 37 per cent and 29 per cent of the state's population and area. The region is characterized by high density of population and its overwhelming dependence on agriculture, fragmented and scattered agricultural holdings resulting in low productivity per hectare, lack of non-agricultural employment, poor communications, under-employment and low standard of living. The density of population of the region is 387 per square kilometers as against 300 for the entire State.¹ Nearly half (49 per cent) of the households have holdings less than 2.5 acres. Holdings of 7.5 acres or more are possessed by only 13 per cent of the rural households. The corresponding percentages for the state are 39 and 19 respectively. The

¹Report of the Fifth Five Year Plan, Uttar Pradesh - Draft - p. 308.

level of value of agricultural production per hectare and per capita in the eastern region were less by 8 per cent and 29 per cent respectively than the levels obtaining in the State. In the words of a study team,

"In these districts the agricultural income, which is low for each acre of the cultivated land, gets further reduced when shared by more persons. Not only the cultivated land is less per person or per family on an average but its distribution is very skewed, with the result that a very large number of families at the lower end would have much less income than indicated by the average income."²

The industrial sector of the economy is very inadequately developed except for some concentration of sugar factories in certain pockets. However, the soil of the region is agriculturally rich and irrigation potential can be developed to a significant extent if the rivers, streams, canals and the underground water are properly exploited through private and public irrigation schemes. During different plan periods efforts had been made to correct the imbalance and in 1970-71 the gross area irrigated to gross area sown in the eastern

²Report of the Joint Study Team (R.P. Patel) on Eastern Uttar Pradesh.

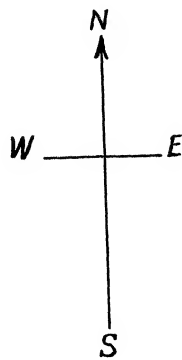
region was 32.4 per cent compared with 50.2 per cent in the western region and 37.1 per cent in the State as a whole.³ This brief review of the economic conditions of the eastern Uttar Pradesh clearly suggests that the economic development of the region largely depends on an accelerated growth of the agricultural sector. This however, needs an integrated approach to district planning with emphasis on increasing production per hectare by increasing the intensity of cultivation, improving the land-man ratio by implementing the schemes of consolidation, creation of an efficient agro-industrial complex and co-operative development. Ultimately the solution of the problem of the backwardness of the region depends upon capital formation through mobilisation of resources, both human and material and suitable financial help through the State and Central Governments. One of the objectives of the Fourth Plan was reduction of disparities in social services and economic infra-structure between the backward and relatively developed areas. Fresh thinking and a new set of priorities in economic planning of the region are, however, needed for increasing the net product of the different sectors of the economy of the eastern Uttar Pradesh, particularly agriculture which is the predominant sector of the region.

³Report of the Fifth Five Year Plan, Draft -
p. 310.


Allahabad District - Location And Topography :


It is in the background of Eastern Uttar Pradesh that we should study the physical and economic conditions of the district of Allahabad, and its development problems. The district lies between Lat. $24^{\circ} 47'$ and $25^{\circ} 17'N$ and long. $81^{\circ} 9'$ and $82^{\circ} 21'W.$, the length from east to west being 117 Km. and the breadth from north to south about 101 Km. The northern boundary is formed by the districts of Pratappur and Jaunpur, for a third of distance it is separated from districts Rae Bareilly and Pratappur by the river Ganges. On the east and south east it is bounded by the districts of Varanasi and Mirzapur, on the south the State of Madhya Pradesh, on the south-west the district of Pandh and on the west that of Fatehpur.


According to the survey of India the district has an area of 7,254 sq. km. and stands ninth in the State in respect of size. The area fluctuates somewhat from year to year as the main rivers, the Ganga and the Yamuna - particularly the former - have the marked tendency of changing their courses. The district comprises of 8 tehsils, Sirathu, the smallest of the tehsils, has an area of 604 square kilometres or 233.2 square miles and Meja, the largest of the tehsils is 1,717.3 square kilometres or 663.5 square miles in size.





DISTRICT ALLAHABAD

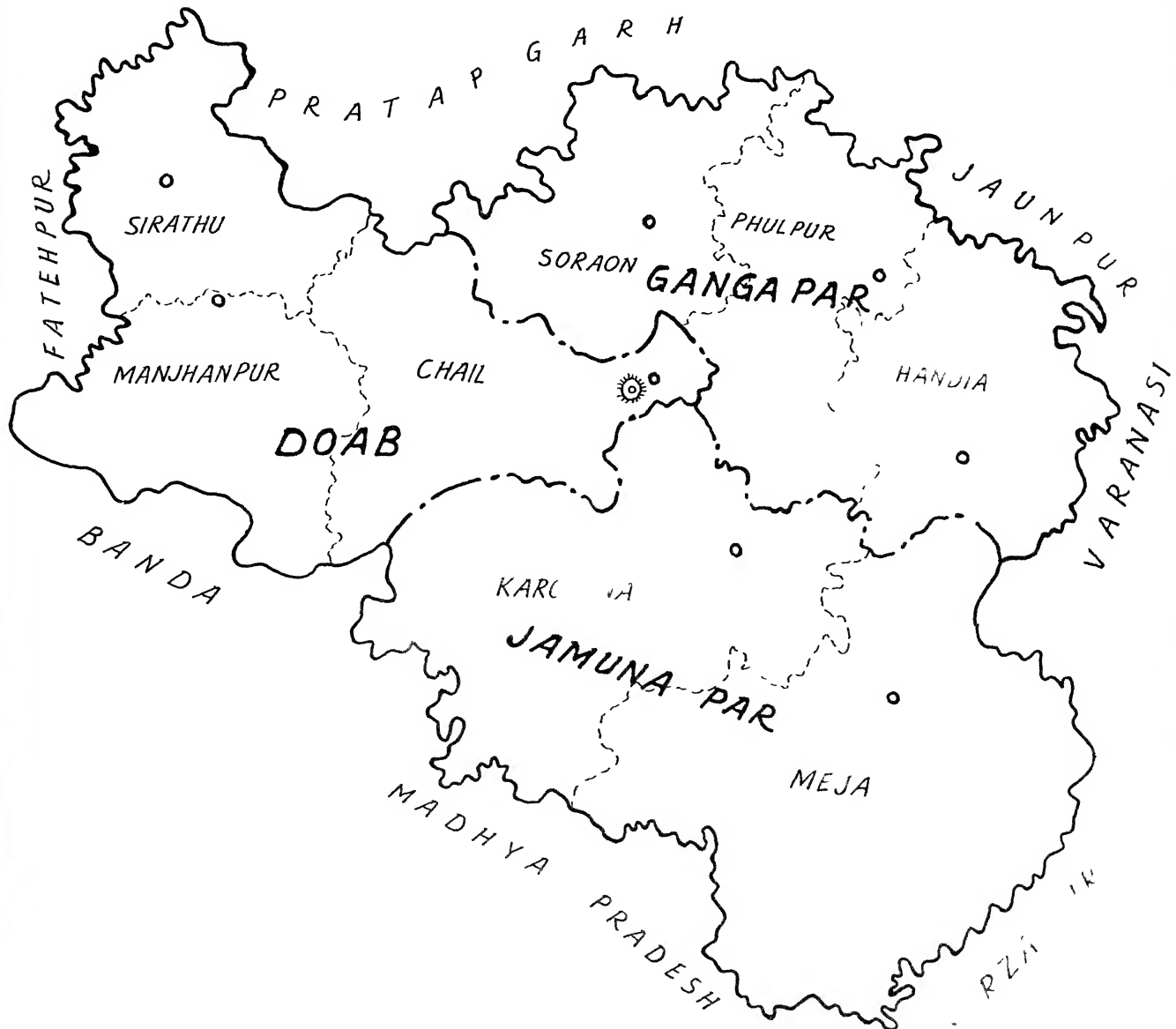
District Head quarter 

Tahsil Head quarters 

District Boundary 

Regional Boundary 

Tahsil Boundary 



The other tehsils with their respective areas given in the brackets are Karchhana (1,370.4 square kilometres or 529.1 square miles), Ghail (88.5 square kilometres or 309.2 square miles), Pandia (771.6 square kilometres or 297.9 square miles), Manjhanpur (710.4 square kilometres or 274.3 square miles), Cornon (681.9 square kilometres or 263.3 square miles) and Thulpur (749.69 square kilometres or 290.30 square miles).

Cangapar :

The district may be divided into three distinct physical parts - the trans-Canga or the Cangapar plain, the Doab and trans-Varuna or the Varunapar tract. The trans-Canga tract comprises the 3 northern tehsils of Cornon, Thulpur and Pandia, its southern boundary being formed by the Canga. There are broad strips of Khadar (flood plain) in parganas Nawabganj and Jhusi but where the river flows close to the high bank, the Khadar is narrow and insignificant.⁴ The high bank of the Canga, which is generally broken by ravines and drainage channels, is covered with poor sandy soil full of Fankar (nodular limestone). North of the high bank lies a belt of light loam generally varying in width, which is broadest in parganas Nawabganj and Jhusi. North of this belt and extending to the district boundary is a broad

⁴Gazetteer of India, Uttar Pradesh, Allahabad, p. 3-4.

depression of clay with stretches of usar (alkali - laden land unfit for cultivation) here and there, the northern limit of which, in tehsil Mandia, is formed by a high ridge which extends into district Varanasi. The general slope of the tract is towards the east or south-east the highest altitude being 93.57 m. above sea level at Jhusi, the land then imperceptibly dropping to 30.30 m. at the Allahabad - Varanasi border near the Grand Trunk Road.

Doab :

The doab tract comprises the tehsils of Ghail, Sirathu, and Manthanpur. Taken as a whole, the tract is rich and fertile. Between the Ganga and its high ridge there is a strip of alluvial land very narrow in places but elsewhere widening out into broad stretches of sand and silt. A considerable area of this low alluvial plain, which is not generally affected by floods, produces good Rabi crops. The high ridge, which marks the flood bank of the Ganga, is covered with gritty soil full of Kankar and is broken by innumerable ravines some of which extend several kilometres inland. As the level drops inwards from the high ridge the soil becomes light loam which changes into stiff clay in the central depression formed by the valley of the Sasur Khaderi along which there is an undulating belt of poor soil -- specially in its lower reaches near its confluence with the Yamuna

where the ground is broken by a network of ravines. To the south of the central depression, as the level rises towards the high bank of the Yamuna, the soil changes to light loam. In brief, the Bahr or sand, which is similar to the Phur of the other districts is commonly found on the highest levels and on the river banks; Pattiya or Clay, called locally, Chanchar, is found in the depressions. The third variety Pomat or loam, or Siroan as it is often called, is the mixture of sand and clay. It is rich and dark.⁵

Trans - Yamuna (Or Yamunapar) Tract :

This tract, which lies to the south of the Yamuna, forms a part of the Bundelkhand region and comprises the tehsils of Farchhana and Meja, the tons forming the boundary between the tehsils. To the north of tehsil Farchhana lies a ridge formed by the high banks of the Yamuna and the Ganga, which ranges from about a kilometre and a half to 5 km. in width and is crowned with light sandy soil, full of Kankar.⁶ To the north of this ridge there is a narrow strip of Kachhar (low land) which is more prominent near the confluence of the

⁵ E. Misra : Agricultural Holdings in the District of Allahabad, p. 18.

⁶ District Gazetteer - p. 4-5.

could be utilised through medium irrigation schemes and proper bunding it would give relief to the rural population on the one hand and will be fulfilling the requirements^{of} much needed irrigation.

Agricultural Development :

An enquiry into the investible funds and taxable incomes in the agricultural sector of Allahabad district has naturally to investigate about the differences in the productivity of land over the different soil-climatically homogeneous tracts. "Within any soil climatically homogeneous district/tract the productivity of land depends, firstly, on whether the land has an assured and controlled water supply, and, secondly on the particular crops grown."⁸ In this section, therefore, we shall deal with (a) water resources and irrigation conditions in the three geographical regions of Allahabad and (b) the cropping pattern, particularly an idea about the double cropped area and the High yielding varieties programme area. (c) Also it is significant to get a trend of the total agricultural production of the various Rabi and kharif crops of the district as a whole to know the growth of the sector during the different plan periods.

⁸Report of the Committee on Taxation of Agricultural Wealth and Income, p. 25.

Ganga and the Tons and in the north - eastern part of tehsil Meja. To the south of the upland (a strip of old alluvium, which comprises the central part of tehsil Karchhana and the tracts of Chaurasi and Wanda Vitar in tehsil Meja), the ranges of the Windhan Series lie in 3 sections, the Windhyachal, the plateau and the Panna range. To the south of this escarpment is an irregular plateau of inferior marl and clay which is drained by the Lapri (a small affluent of the Felan), the surface being broken by small hills and rocky outcrops. The soil of a major part of Jannapar has very poor plant food nutrients and together with a low water level, this is the most chronic drought affected area of the district.⁷

Climate And Rainfall :

The climate of the district is known for its cold winter and the impact ^{of} hot summer season in the pre-kharif sowing period. The average rainfall varies from 35" to 40" according to the 1961 census. The average rainfall during the decennium (1951-60) was 100 cms. which was considered higher than the normal rainfall of 97.6 cms.. Floods from the rivers Ganges and Yamuna cause damage to crop and property in the villages near the valley area. If this surface water

⁷Bank of Paroda, Lead Bank Survey Report on Allahabad District, p. 3,

could be utilised through medium irrigation schemes and proper bunding it would give relief to the rural population on the one hand and will be fulfilling the requirements^{of} much needed irrigation.

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⁸Report of the Committee on Taxation of Agricultural Wealth and Income, p. 25.

Water Resources And Irrigation :

Allahabad is famous for the confluence of the two holy rivers, the Jamuna and the Ganges. Tons is another important subsystem of the Ganga. The Ganges enters the district from the north-west in tehsil Sirathu and after meeting Jamuna at Allahabad it flows out eastwards into Mirzapur and Varanasi districts. It has a total length of about 78 miles in the district. The Jamuna enters the district from the west at Mahovaghat in tehsil Manjhanpur and passing through Farchhana and Ghail tehsils it joins the Ganges at Allahabad. The river Tons enters the district in tehsil Meja from the hills of Madhya Pradesh and flows in the north east direction forming a boundary between Meja and Farchhana tehsils upto Sirsa where it also joins the Ganges. These rivers of the district belong to the main system of the Ganga and are significant not only because of the religious sanctity attached to them but also because of their good irrigation potential. Being a perennial river the whole of Allahabad city gets its water requirements from the river Jamuna. These rivers help to extend irrigation facilities even to the drought affected areas of the district, namely, Meja and Farchhana tehsils.

Underground Water Resources :

On account of the different topography of the three parts of the district, the depth of the underground water level varies from place to place. The area across the Ganges has an underground water level which is not very deep. Thus irrigation facilities can be extended without much difficulty and by March, 1974 out of the total number of 513 State tube-wells in the district, the Ganapaur region had the major share of 70 per cent.⁹ The proportion of the irrigated area to the net sown area is also highest viz. 48 per cent in the Ganapaur region, the respective percentages for the Doab and Jamunapur being 26 and 18 only. The underground water in Doab and Jamunapur is 150-300 ft. below ground with the result that the cost of boring tube-wells becomes very uneconomical. In Doab and Meja tehsil of the Jamunapur hard rocks are found which makes the boring of private minor irrigation schemes difficult if not impossible. More of State tube-wells and lift irrigation schemes are required for these regions so that they may get assured water for the two crop seasons.

⁹Fifth Five Year Plan, Allahabad District.

Irrigation And High Yielding Varieties Programme :

Table No. 1
Agricultural Development

Region	Geographical Area (Hect-are)	Net sown area (Hect-are)	Area sown more than once (Hect-are)	Percent- age of the area sown more than once	Percent- age of Irriga- ted area to net sown area	H.V.V.P. Area Percent- age
Gangapar	2,20,392	1,42,281	65,856	46	48	29
Doab	2,10,893	1,44,158	33,368	23	26	18
Jamuna- par	3,06,435	1,92,467	47,482	18	18	9
Total	7,37,720	4,78,906	146,706	29	31	19

Source : Fifth Five Year Plan Allahabad District.

Looking to the above table we find that the Gangapar tract is more active and developed agriculturally. The respective area of irrigation is 67,961 hectare, 37,082 hectare and 34,939 hectare in the Gangapar, Doab and Jamunapar regions of the district. For the high yielding varieties programme the respective areas are :

Cangapar	34,833	Hectares
Doab	15,646	Hectares
Jamunapar	12,280	Hectares

Even with a larger area sown in the trans- Jamuna tract the larger percentage of irrigation and high yielding varieties programme clearly shows the highest agricultural development in the Cangapar and the next two grades in priority are to be assigned to Doab and Jamunapar respectively.

It is stated that by the end of the First Plan only 3,207 hectares of land in the district was irrigated. In 1966-67, 19,280 hectares of land was irrigated. During the Fourth Five Year Plan it was proposed to irrigate 1,28,316 hectares and 15,720 hectares respectively through major and medium irrigation projects. In the major projects the Pampana Canal, the Dalmau Pump Canal and the Tons Pump Canal are to be included. In the medium projects the Tundiari Pond, the Adwa Pond, Lift Irrigation Schemes and 100 Government Tube-wells are included.¹⁰ The additional area proposed to be irrigated through minor irrigation works was 51,648 hectares during

¹⁰ Bank of Paroda, Lead Bank Survey Report on Allahabad District - p. 48.

the Fourth Plan. In the Fifth Five Year Plan :

Total Irrigated Area Potential from State sources.	2,33,386
From Private Sources	1,85,423
Total :	<u>4,18,809 Hectare</u>

Canals :

The length of Canals in the district is 670 kms., out of which 237 kms. are in the Cananagar, 176 kms. in Doab and 257 kms. in Jamunagar. In the Jamunagar region, the Government sources of irrigation consist of the Felan Canal and the lift irrigation (10 schemes in all). From 1970 water in the Felan Canal is supplemented by water from the Tons lift irrigation schemes. As a result this area has started cultivating high yielding varieties of seeds; some portions of the Felan Canal in the Meja tehsil are low lying areas. Consequently, farmers in this region can not make use of the canal water even though water is available in it. Farmers in these low lying portions are in the need of pumps for lifting water from the canal so that they can irrigate their farms. The defect in the other canals viz. lower Ganga canal, Sharda canal and Ramganga scheme is that they lie at the tail end.

Therefore, the irrigation is not reliable and is inadequate. No roster is prepared for canal waters according to the requirements of the crops. It is expected that the Sharda Sahayak scheme will help in getting some protection to crops in the coming years.

Minor Irrigation :

Table No. 2

Minor Irrigation Through Private Sources

Region	Gross Sown Area (Hectares)	Irrigated Area Available (Hectares)	Percentage
Gangapar	208137	58,001	28
Doab	177526	35,736	19
Jamunapar	239949	21,006	8
	625612	114,743	18

Source : Fifth Five Year Plan Allahabad District - p. 32.

The total irrigated area by minor irrigation (private) schemes has been 114,743 hectares out of which 50 percent capacity is generated through private tube-wells. Both the private and the state tube-well are mostly in the Gangapar region and due to assured irrigation potato and vegetable crops find

a prominent place in the cropping pattern of even the small farmers. In the fifth five year plan an additional irrigation will be provided to 70,000 hectares through State tube-wells. This capacity of irrigation facilities will be so distributed so that the Tonk and Jamunawar tracts get more advantage from the new construction because it is difficult for private tube-wells to be installed in these regions of Allahabad the underground level being low.

It should be mentioned in this connection that the present policy of the Irrigation Department is not to sanction electricity to a farmer within less than 100 metre distance from a major canal and 50 metre distance from a minor canal. Consequently, farmers cannot have electrically operated tube-wells even when the canal tails are dry. Government tube-wells would constitute an important source of irrigation in district Allahabad as due to the rocky strata of certain tehsils of the district individual farmers find it very costly to construct a tube-well. It is estimated that about 400 more Government tube-wells would be necessary if 60 per cent of the agricultural land is to be provided with irrigation facilities. Owing to deep spring level masonry wells with rahats cannot be a practical proposition and the private cost of boring tube-wells becomes very uneconomical.

Agriculture Refinance Corporation Schemes¹¹

The Agricultural Refinance Corporation has completed its minor irrigation scheme in the Nevada and Chail blocks in the Chail tehsil, Sirathu and Fara blocks in the Sirathu tehsil and Vannali and Manjhanmur blocks of the Manjhanmur tehsil. The details are as follows :

(Rs. in lakhs)		
Description	Numbers	Cost
Tube-wells	900	40.50
Pumping sets	300	12.00
Masonry wells	800	9.60
		<u>62.10</u>

The Agriculture Refinance Corporation Schemes for minor irrigation is under implementation in the Phulpur, Pratappur and Tahadurpur blocks of the Phulpur tehsil including a total outlay of Rs. 66.70 lakhs out of which the agriculture refinance corporation's contribution is Rs. 60.03 lakhs. The details are as follows :

¹¹ Bank of Paroda, Lead Tank Survey Report on Allahabad District - pp. 62-63.

(Rs. in lakhs)		
Description	Numbers	Cost
Tube-wells	590	47.20
Pumping sets	300	12.00
Masonry wells	300	7.50
		66.70

The minor irrigation schemes under consideration of the agriculture refinance corporation are those in the Chail, Nevada, Manjhanpur, Panchaili, Sirathu and Kara blocks. The agriculture refinance corporation's contribution will be a major share of the cost. Besides the State Government has also some special schemes particularly Fishanpur Pump Canal and Parelal Lower Ganga Canal.

Land Utilisation And Agricultural Holdings :

The chief features of the land utilisation statistics¹² of the district of Allahabad are as follows :-

¹²See Annexure 2.1 (A & B)

Table No. 3
Land Utilisation Statistics

Region	Geogra- phical Area	Net sown Area	Percent- age of (2) to (1)	(In Hectares)		
				Area sown more than once	Percent- age of (4) to (2)	H.Y.W.P. Area Percent- age
	(1)	(2)	(3)	(4)	(5)	(6)
Ganapaur	220392	142281	65	65856	46	29
Doab	240893	144158	68	33368	23	18
Jamunapur	306435	192467	63	47482	18	9
Total	737720	478906	65	146706	30.6	18.6

Source : Fifth Five Year Plan Schedule 2 Allahabad.

The percentage of the multiple cropped area to the net area sown suggests the intensity in the use of cultivated land.

From the data in the above table (col. 5) it is evident that the intensity of cultivation is highest in the Ganapaur region and much lower in the Jamunapur. In the Doab it is in between the two.

With larger schemes of creating irrigation potential in the next five year plan it is expected that the intensity of cultivation and area under high yielding varieties programme will considerably increase in Doab and to some extent in the Jamunapur tract.

With better availability of power the Ganapaur can utilise its potential already created and there is possibility of more

irrigated area through more development of private and state tube-wells.

Culturable And Waste Land¹³ :

The culturable land (including current fallow, groves, forests, pastures and grazing grounds etc.) was 3,54,681 acres in 1962-63 and 328,966 in 1964-65 which comes to about 21.3 per cent of the total area of the district. In 1906 the extent of waste land in the district was 1,63,642 acres, the major area lying in the trans - Yamuna tract particularly in tehsil Meja (which still has a large area of sterile and story ground). The trans - Ganga tehsils also have large areas of barren and waste land particularly in the low clay belt of the parganas of Ferozon, Sikandra and Mah where usar is widely prevalent. The natural drainage here is defective there being no adequate outlet for the water during the heavy rains. In the doab a large portion of such land is situated in tehsil Sirathu, the other parganas having barren, ravined and sandy wastes lying along the banks of the rivers, such land generally being used as grazing grounds and pastures. At the end of the quinquennium of 1946-51, the culturable waste or barren area in the district was 1,54,248 acres and in 1962-63 it was 1,25,447 acres up to 1960-61, more than 10,000 acres

¹³Gazetteer - Allahabad - p. 96.

of such land in the district was reclaimed and brought under the plough. In 1964-65 it was 92,301 acres (or 5.6 per cent of the total area).

Structure Of Holdings :

Table No. 4

Size Distribution Of Holdings - Allahabad

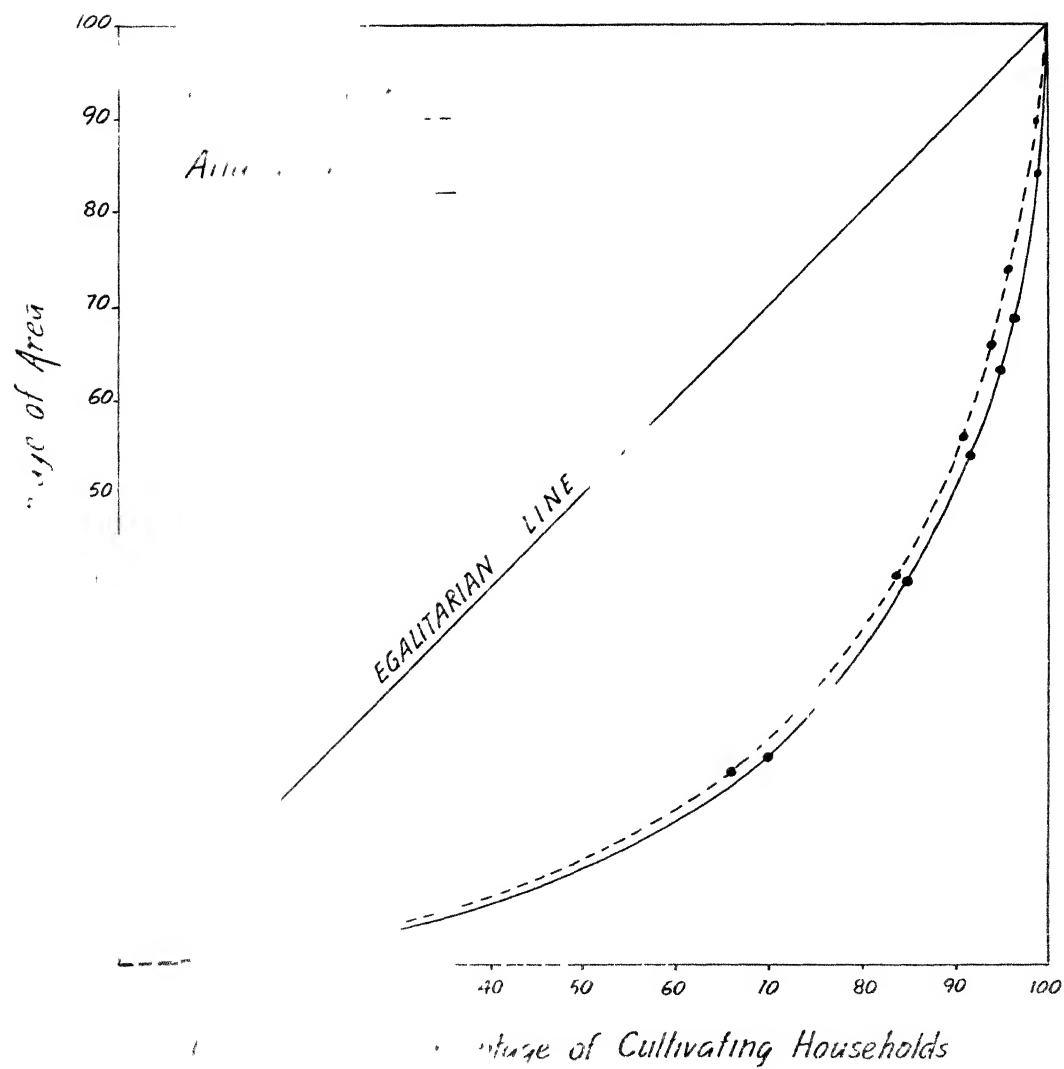
Size Area (Hectares)	Gangapar		Doab		Jamunapar	
	Number	Area	Number	Area	Number	Area
Upto 1 Hect.	169092	55136	92702	36727	73885	28798
1 - 3 "	37083	60207	34416	58084	31721	54838
3 - 5 "	5682	21438	7055	26550	8652	33235
Above 5 "	2729	21105	4180	34764	10066	112958
Total	214586	157886	138353	156125	124324	229829

Source : Census of Holdings 1970-71, N.P.

From a perusal of the above table, we find a concentration of small holdings below 3 hectares in all the three regions of the district, particularly the Gangapar area. The relative percentages for the three tracts are respectively 96 percent, 93 per cent, 85 per cent. For Uttar Pradesh¹⁴ the figure is 91 per cent which

¹⁴ Agricultural Census, For details see Annexure 2.

Concentration Curves of District Allahabad And U.P.



means that the average holding in Uttar Pradesh is small. However, average holdings in Uttar Pradesh are larger than Eastern Uttar Pradesh.¹⁵

In Uttar Pradesh the average area of an operational holding is 1.16 hectares. In 28 districts it is less than average and Allahabad is one of them.¹⁶ Average size of operational holding for Allahabad district which is more than that for Eastern Uttar Pradesh (0.88 Hectare) comes to 1.13. The districts which have an average operational holding of more than 1.5 hectares lie mostly in western Uttar Pradesh and Bundelkhand regions. There is a substantially large number of holdings above 5 hectares in the Jamunapar region of the district as compared to the other two regions. The area engaged in these operational holdings is even more significant and comes to about 50 per cent of the total area. The southern region of the Jamunapar (particularly Meja tehsil) is part of the Bundelkhand region of Uttar Pradesh. The respective percentages for Gangapar and Doab of area covered in the holdings of more than 5 hectares are : 13.4 per cent and 22 per cent only.

¹⁵ Agricultural Census, For details see Annexures 4.4 & 9.2

¹⁶ Krishi Gadana (Agriculture Census) : Operational Holdings in Uttar Pradesh, p. 38, 47.

Agricultural Production :

The principal crops are : paddy, bajra, jowar and maize in kharif season and the major Rabi staples are wheat, barley, gram and pea. Paddy is one of the most important food crops in the district. It requires heavy rainfall or suitable irrigation facilities, fertile soil and considerable manual labour for the yield to be good. The stalk and leaf portions are used mostly as cattle fodder. The largest quantity of paddy is grown in the tehsils of Mandia, Chail, Phulpur and Sirathu. Jowar and Bajra are important food crops in Kharif and form one of the major elements in the diet of the poor village folk. They can be easily grown even in poor and sandy soils and where facilities for irrigation are limited or are not available. Wheat is the principal crop of Rabi and is grown in all parts of the district. Comparing the district average yield per hectare with the State average yield for the year 1967-68, the district average yield is lower than the State average yield in the case of paddy, jowar, wheat and groundnut and sugarcane.¹⁷ The district average yield for potatoes is also slightly lower than the state average yield.

¹⁷Pank of Paroda, Lead Pank Survey Report on Allahabad District - p. 26.

Only in the case of arhar, the district average yield is substantially higher than the State average yield (8.20 per cent).¹⁸

The foodgrain production during the 25 years of planning has been as follows :-

Periods	Metric Ton
At the end of First Five Year Plan	325019
At the end of Second Five Year Plan	462,296
At the end of Third Five Year Plan	306,000
Last Year of Fourth Plan 1973-74	514,000
Fifth Plan Target	585,000

Source : Bulletin of Agricultural Statistics,
Uttar Pradesh.

Economic Trends

National Planning And Community Development :

In the pre-planning period rural development activities were taken in hand, controlled and supervised by the rural development association which was

¹⁸ See Annexure 8.3

replaced in 1952 by the district planning committee which had a number of sub-committees for the preparation and execution of the plan schemes. Under the process of democratic decentralisation in 1958 the district planning committee was replaced by the Zila Parishad with D. P. O. as the mukhya adhikari (Chief Executive Officer). For the implementation of different schemes under the Five-Year Plans, the units of operation are the development blocks which number 27 today: 11 in Cangapar and 8 each in Doab and Jamunapar. The Kshettra Samiti for each development block is responsible for all the development activities within the block, the Khand Vikas Adhikari (B. P. O.) being the chief executive officer and the administrative head of the block.¹⁹ An agricultural development index has been prepared with the help of Indices of high yielding varieties programme and irrigation proportions of the different blocks of the district. This index of development broadly indicates the 'more developed' and 'less developed' blocks in regard to the potential for agricultural production and general economic welfare.²⁰

¹⁹Casetteer - p. 191.

²⁰See Annexure 9.1

On an average a development block in this district consists of about 335 villages with a population of nearly 79,821.

Population And Occupational Pattern :

According to the figures of the census of 1961 in the district 19,92,412 persons (or 81.8 per cent of the total population of 24,38,376) belong to the rural areas and 4,43,964 (or 18.2 per cent) to the urban. The population for the year 1971 as per census is 29.35 lakhs of which an estimated 5.73 lakh persons live in urban areas and about 23.62 lakh persons live in rural areas. Thus, the population of the district has risen in 1971 by 20.4 per cent over the 1961 population. In other words, the density of population in the district which was 326 persons per square kilometre in 1961 has risen to 405 persons per square kilometre in the year 1971. As against this, the State average in 1961 was 250 persons per square kilometre and the State average in 1971 is 300 persons per square kilometre.²¹

The density of population of the tehsils according to the 1961 census showed a certain degree of variation. Tehsil Chail was the most densely populated mainly on account of the city of Allahabad. Its

²¹Bank of Baroda, Lead Bank Survey Report on Allahabad District - p. 8.

density was 848 persons per square kilometre. As regards the density of other tehsils, tehsil of Soraon stood foremost with a density of 407 persons per square kilometre. The density of population per square kilometre of the remaining tehsils were as follows : Handia 373, Phulpur 363, Sirathu 308, Manjhanpur 273, Parchhana 212 and Meja 143. The highest rural density according to the 1961 census was 401 persons per square kilometre in tehsil Soraon and the highest urban density of 5,285 persons per square kilometre in tehsil Chail. The average size of the household in the rural area was 5 and in the urban 4.7.

Inspite of the emergence of a number of industries, agriculture continues to be the main occupation with a vast majority of the population of the district.²² Out of the total population of 24.38 lakh persons in the district (1961 census), 10.93 lakhs persons (44.8 per cent) constituted the working force. It may be noted that the percentage of workers in the district was higher than the State average of 39.1. The occupational pattern of the working force (1961 census) in the district,²³ shows that agriculture provided the means of livelihood to 74.7 per cent of

²²Ibid., p. 74.

²³Appendure 8/4

the total working population in the district. Household and manufacturing activities provided means of livelihood to 8.7 per cent while 4 per cent of the working force was engaged in trade and commerce. Thus it is seen that though agricultural activities were the mainstay of the people of the district, industrial occupation and trade and commerce were not altogether unimportant as these sectors together constituted 12.7 per cent of the total work force. With industrial activities having recorded significant progress during the last decade this percentage would have certainly increased now. Compared to the other eastern districts like Rae Bareilly, Sultanpur, Pratapgarh, and Fatehpur and even Faizabad district Allahabad is developed industrially.²⁴

Industrial Estates :

To relieve rural unemployment and encourage decentralised regional development industrial estates programmes have been started in the Five Year Plans. There are two industrial estates in district Allahabad. One is in Maini and the other is in Phulpur. In Maini about 20 units have been set up with a total fixed capital of about Rs. 4 crores. Recently 3 public

²⁴ Bank of Baroda, Lead Bank Survey Report on Allahabad District - p. 74.

sector units have been set up; heavy pumps and compressors, telephone communication instruments and T.S.I. where about 10,000 persons would find gainful employment in these units.

The Rural Industrial Estate, Phulpur has been established with 5 sheds in Phulpur on the Allahabad - Jaunpur road. Two sizing and calendaring units, one powerloom unit and one engineering works are operating in these sheds.²⁵ A unit manufacturing naphthalene balls has been set up in an area adjoining this industrial estate. In view of the growing demand for sheds, the authorities have acquired nearly 10 acres of land adjacent to the industrial estate and 47 more plots have been provided. All the plots are said to have been provided with power and water facilities. Out of these, 25 plots have been allotted to entrepreneurs proposing to deal with dyeing and printing of cloth, manufacture of chemicals including paints and varnishes, agricultural implements, plastic goods etc. Twelve plots are said to be reserved for setting up a pottery project and a powerloom unit on a co-operative basis. A recent significant development in Phulpur is the proposed setting up of a Fertiliser Factory with a substantial loan from the World Bank of about Rs. 10 crores. This

²⁵See Annexure 3.11

particular area was selected by the I.L.O. for the promotion of rural employment in 1963, because the area has a heavy pressure of population, and a subsistence agriculture with a considerable scope for additional employment.²⁶

Small Scale And Cottage Industries :

The district has about 250 small scale industrial units which produce published material, bricks, oil, food material, ice, soap, shoes, woollen yarn, sports goods, furniture and goods made of metal. Rural and cottage industries are widely distributed in the district, numbering about 23,000. About 82,000 persons produce bidis, jaggery, handloom cloth, oil, potters, metal goods, leather shoes, blankets, articles of wood and bamboo, string, toys, moonj goods etc.

Revenue Administration :

It is quite likely that in ancient and pre-Mughal times the general pattern of revenue administration in the area now covered by the district conformed to that then obtaining in the rest of the country, the local king taking a share of the farmer's produce who in return enjoyed his protection from enemies, both external and internal. The first attempt at a regular settlement was made here during the reign of Akbar

²⁶ Gazetteer : p. 129.

(1556-1605) with the help of his revenue minister, Todar Mal. Akbar made 1/3 of the average produce the basis of the standard assessment. Under the ministership of Todar Mal and Iuzaffar Khan, a ten year settlement was inaugurated which was based on the average of the previous 10 years' collections. This system continued, during the Mughal period and for the 5 years ending with 1801 the average annual income including sayar assets from the 26 parranas (which than formed the district of Allahabad) was Rs. 26,35,865 of which Rs. 492,841 was from the doab, Rs. 5,29,322 from the Gangapar tract and the remaining from the Yamunapar tract.

Settlements During British Period :

In 1801 the territory now covered by the district of Allahabad was ceded by the nawab Vizir of Awadh to the British who made a few summary settlements in succession. The assessments were based generally on the farming system (or taking the revenue on the basis of a fixed sum), the revenue being collected by tehsildars. The fifth settlement (under Regulation IX of 1833) was the first regular settlement and was made for a period of 30 years.²⁷ The main feature of this settlement was the reduction of the rate of

²⁷Gazetteers, Allahabad District - p. 204.

assessment from ten-elevenths to two-thirds of the assets. The revenue demand fixed for all the parganas was Rs. 5,78,600 in the doab and Rs. 7,57,153 in the trans - Ganga region, the revenue assessed being Rs. 21,09,176. In pargana Chail the demand was lighter, in some portions of which it was known as the Chavanni (four - anna) bandobast. The sixth settlement was completed in 1878 and the seventh in 1912. In the latter settlement the net assets accepted for the purposes of assessment amounted to Rs. 39,21,605 and the revenue to Rs. 18,95,204.

The date of expiry of the settlement in the tehsils of Hardin and Phulpur was June 30, 1944, and in tehsils Allahabad (Chail), Sirathu and Manjhanpur a year later. The soil classification of the previous settlement was found to be impracticable and useless.²⁸ The soil was now classified into 4 main classes - gauhan (land situated in the village) manjha (middle-land), har (land in its natural condition not improved by irrigation, etc.) and Chanchar (rice land). In 1945 there were in the district of Allahabad 3,51,890 persons cultivating or otherwise occupying land and the total number of holdings covered an area of 13,25,694

²⁸Settlement Report of Allahabad, 1915.

acres, the average size of a holding being 3.8 acres.²⁹ The Uttar Pradesh Zamindari Abolition Act brought about fundamental changes in the rights, title and interests to land. The multiplicity of tenures was replaced by only 3 types -- the bhumidhar, the sirdar and the asami. The statement below gives the number of persons who acquired such rights in the district and the acreage involved as on December 31, 1964.³⁰

	No. of Persons	Extent of land in (Hectares)
Bhumidhar	1,56,273	3,32,906.037
Sirdars	2,32,990	1,21,576.631
Asamis	482	341.959

Source : District Gazetteers : p. 207.

On July 1, 1952, the total Zamindari Abolition area in the district was 7,04,904.684 and the non-Zamindari Abolition area was 33,919.887 hectares. The bhumidhars and sirdars were responsible for paying collectively the land revenue assessed for the whole village. At the end of 1358 Fasli (1950-51) the total amount of land revenue from the district was Rs. 26,95,402 as compared with that for 1371 Fasli

²⁹Report of the U.P. Zamindari Abolition Committee, Vol. II, pp. 34-39.

(1963-64) which was Rs. 61,73,493.³⁰ This more than doubling of the land revenue was the effect of converting the previous rent to revenue for the State after the Zamindari Abolition. In 1961 there were 2,366 gaon sabhas in the district, the number in each tehsil being as follows: 389 in Bandia, 290 in Soron, 340 in Meja, 331 in Thulpur, 210 in Manjhanpur, 177 in Sirathu, 250 in Ghail, and 317 in Farokhanna. The collection of revenue is not made through gaon sabhas in this district and a deputy collector is the officer in charge of these collections, the ultimate responsibility being that of the collector of the district.

³⁰District Gazetteers - p. 208.

CHAPTER IX

MOBILISATION OF AGRICULTURAL SURPLUSES IN THE DISTRICT OF ALLAHABAD

A new dimension has been added to Indian agriculture when the new farm strategy was initiated since 1965, and has brought about a substantial increase in agricultural production, in particular food crops.¹ That new technology could be introduced independent of the scale of the farm appeared to open wide prospects for its adoption without forcing new contradictions into the Indian rural society. However, the increase in income in the agricultural sector is not evenly distributed in that sector. The beneficiaries have been the larger farmers who marketed their surplus produce although the subsistent farmers might have had an improvement in their consumption of cereals. To quote a recent important enquiry.²

"The important point is to determine what is the percentage of the farmers, who have benefited and to identify them."

¹(1) Economic survey of India, 1968-69 and 1969-70, Directorate of Economics and Statistics.

(ii) Martin F. Abel, Agriculture in India in 1970's, Economic and Political Weekly, 1971.

²Taxation Enquiry Committee, Uttar Pradesh, 1968-69, p. 26.

We are basically concerned with a suitable fiscal or land revenue policy for our gradually modernising agricultural economy with production being nearly doubled during the 25 years of planning and prices of agricultural products rising by more than 300 per cent,³ since 1957-58. There has also been a recent observation that rural consumption between 1955-70 has risen by about 116 per cent whereas it has gone up by only 65 per cent or so in the urban sector during the same period.⁴ Evidently we are guided in this study by the twin objectives of welfare and efficiency, taking due consideration of both inter-sectoral and intra-sectoral equity in formulating a suitable policy for farm taxation.

Objectives Of Study :

In brief our empirical study regarding input-output relationship in the villages of Allahabad shall focus attention on the following three issues:

(1) To find out the various elements of agricultural productivity of the different size-group of holdings in the district of Allahabad, to determine a family holding size (irrigated or partially irrigated)

³Quarterly Bulletin of Statistics, Uttar Pradesh, January-March 1974, Table 102, p. 47. For family index in Uttar Pradesh refer to Table 1/Ch VI

⁴Uttar Pradesh Vidhan Sabha Proceedings White Paper Dec. 1974. (Annexure 9.3)

which may under the existing price level of both the inputs and the farm products gives a minimum norm of output (or income) and employment to support the farm family.

(2) To know as far as practical a cut off point of the taxable minimum size of holding in the three soil climatic conditions of the district of Allahabad which will generate disposable agricultural surpluses (considering only incomes from the crops) in the agricultural year 1973-74.

(3) To estimate the amount of additional revenue in the district of Allahabad if the present system of land revenue was replaced by a reformed agricultural holding tax.

Incidentally we may also investigate the consumption and saving tendencies of the farming sector in Allahabad and subsequently suggest in a later chapter of our study the possibilities of re-constructing the existing village democratic institutions like Panchayats and the co-operatives to encourage mobilisation of resources. Thus while taxation should make available the surplus funds for economic development, proper incentives to production and capital formation should be always given to the progressive farmers. In other words the marginal increase in agricultural productivity

has not be unduly removed to the Government finances. In a sense these two objectives are in contradiction⁵, and require a re-assessment at a more frequent interval than was undertaken by the settlement policies of the pre-Independence period.

Choice of Tax Base and Cost Concepts :

The concept of taxable capacity is familiar in applied problems of Public Finance, although theoretically it has been controversial. From various considerations of equity, economic efficiency etc. it is desirable that the cost-element of the cultivator should be eliminated from the gross income. It is the remaining "net produce" or net income which should form the base for any land taxation. In the analysis of farm business there are several concepts of costs. The total cost comprises of cash and kind expenses, rental value of land, depreciation etc. and is generally grouped into four categories as given below:⁶

⁵United Nations : "Taxation and Economic Development in Asian Countries" Economic Bulletin for Asia and the Far East (Vol. IV, No. 3, Nov., 1953).

⁶(1) Farm Management in India : Directorate of Economics and Statistics, Mimeographed 1966, Govt. of India - p. 33

(ii) Studies in the Economics of Farm Management, Deoria (Uttar Pradesh), p. 145.

Cost A_1 = Hired human labour, bullock labour, value of seed, manures and fertilizers, irrigation charges, land revenue, interest on crop loan, depreciation

Cost A_2 = Cost A_1 plus rental value of leased in land

Cost B = Cost A_2 plus rental value of owned land plus interest on owned fixed and working capital

Cost C = Cost B plus imputed value of family labour.

Evidently cost C is the most comprehensive cost and gives the estimate of the farm cost when farming is considered to be strictly a business proposition.

The cost concepts described above would help in working out different measures of farm income. These measures are respectively farm business income, family labour income, net income or profit (or loss) and farm investment income.

In our present investigation we have broadly followed the concept of "paid out costs", consisting of material and labour costs actually paid out by the farm operator for current cultivation.⁷ The methodology

⁷Report of the Committee on Taxation of Agricultural Wealth and Income, Govt. of India, Ministry of Finance, 1972, pp. 25-30

used in estimating State incomes in Uttar Pradesh and the deduction items for Agriculture have been also carefully studied for this purpose.⁸ However, it has not been found feasible for a realistic evaluation of the cost of cultivation and economic condition of the cultivator to follow these concepts rigidly in details although broadly agreeing with their approach. Particularly we have given as much weightage to family labour in total costs as to hired labour. The imputed cost of farm produce used as inputs for agricultural production within the farm like organic manure cannot be legitimately deducted unless all such produce is fully taken into account in the estimation of the gross output of the farm. During the course of our investigation we found it necessary to guard against the tendency to inflate cost estimates, and laid down 50 - 55 per cent of the gross produce as a ceiling on the percentage of deductions. This was in broad agreement with such surveys in Uttar Pradesh and other States and of the country.⁹

⁸Annexure to State Income Estimates of Uttar Pradesh from 1960-61 to 1964-65, p. 5.

⁹Report of the Committee on Taxation of Agricultural Wealth and Income, Govt. of India, Ministry of Finance, 1972, p. 31, and Taxation Enquiry Committee 1974, p. 457.

Farm Economy Of Allahabad

Design Of Survey :

The survey method of enquiry was used for the study with multi-stage stratified-cum-random sampling as the design. The first stage of sampling was taken as the Development Block and second stage the Village and the ultimate unit of sampling the operational holding.

Allahabad district has been divided into three broad soil - climatic tracts or strata : the Gangapar, Doab and trans-Jamuna . These three regions of the district comprise 1512,831 and 11,86 villages respectively. The irrigation conditions, size of holding and soil, underground water level etc. differ widely in these regions and hence they give sufficiently homogeneous tracts of this district for a study of agricultural productivity and farm holding taxation.

Criterion For Selection of Blocks/Villages :

For investigating the production conditions of the average type in the district an index of agricultural development was constructed for the 27 blocks of Allahabad district : 11 in Gangapar, 8 in Doab and 8 in the Jamunapar area respectively. For the construction of this arbitrary index two factors were taken into account : (a) Irrigation potential (b) Coverage of high yielding varieties programme.

Other factors like use of fertilizer, cropping pattern, credit ^{and} farm practices also govern the production and incomes of the farmers. But the intensity of cropping is influenced most intimately by the availability of assured irrigation and the major break-through in agriculture has been achieved in those cereal crops alone where the high yielding variety seeds have been used. Hence our Agricultural Development Index gives broadly a relative picture of the Inter-Block productivity conditions and thus gave us a suitable framework for the selection of the first stage sampling unit. For Gangapar the net irrigated area was 48 per cent of the total net cropped area. We prepared the irrigation index by taking 48 per cent as the base or 100 and inflating the figures for the 11 blocks of Gangapar accordingly. Similarly the total area under high yielding varieties programme was found out under each block and its percentage found out with the total gross area under cultivation and taking the Gangapar average 25 as the base or 100 we calculated the index for all the Blocks.

Now a composite index was constructed for Irrigation and high yielding varieties programme giving weights by the respective percentages of irrigation and high yielding varieties programme. This is

given in the last column of the table.¹⁰ Similar composite indices were constructed for the other two regions of the district.

Now this device of a composite index broadly representing the agricultural development potential of the different blocks of the district enabled us to select one block of a more developed type (compared to average conditions in the region) and the other of a less developed type. It may be mentioned for clarification that only irrigation or high yielding varieties alone would not have given full justification for our selection. As an example : Holagarth has more irrigated area but less of high yielding varieties area under cultivation. In the new technology of agriculture, now being known as the 'green revolution' the progressive practices are associated with high yielding varieties and water with of-course sufficient land of adequate fertility. It is mainly in cereal crops that the new strategy has given significant results ^{the major} and proportion of cropped area in Allahabad district is devoted to these crops.

Name of the selected blocks are as follows:

Gangapur	Dosh	Jamunapur
Soraon	Panjhanpur	Chaka
Bahadurpur	Chail	Meja

¹⁰ See Annexure 2/1.

The same broad criterion of "less developed" and "more developed" villages were considered within the selected blocks for choosing the villages also. In all , 12 villages have to be selected from the 6 blocks, two from each. Of course only those villages were selected whose proportion of cultivated area to the geographical area was high to have a good sample size. We have investigated agricultural holdings of five size groups. 0-2.5 acres; 2.5-5 acres; 5-7.5 acres; 7.5-10 acres and above 10 acres. To get samples from each of these groups it was essential that the main occupation of the village must be agriculture, in other words there should be adequate cultivated area in the selected village. The breaks into these groups was made to help us locate the income-cost tendencies of various categories of farmers marginal and small, medium type and the big cultivators.

The selected villages were as follows:

	Blocks					
	Sorsaon	Pahad- urpur	Hanjh- anpur	Chail	Chaka	Meja
More developed villages	Phadri	Lahur- pur	Oasa	Mandpur	Dadri	Gunai
Less developed villages	Phawa- pur	Ram- nagar	Kondar	Mandar- pur	Khad- sada	Beri

Selection of The Cultivators :

The selection of the representative villages was a difficult job and consumed several weeks of our time. The village data in the blocks and tehsil headquarters was very meagre and unprocessed to fit into our scheme of selection. From each village selected by the above criterion we randomly selected 10 holdings after proper census and listing of the families according to their respective size of holdings procured by door to door census of holdings. The list was stratified into five groups by size of operational unit and two farms were selected at random from each of these strata. In this process of listing as also of the selection of villages we always consulted the local people particularly the Pradhan, Jathpal and the progressive assistants of the Economics and Statistics Department of the Government of Uttar Pradesh.

This random-cum-purposive statistical design of survey enabled us to get a framework of $12 \times 10 = 120$ operational holdings depicting the varying 'more developed' and 'less developed conditions' of agriculture in the Allahabad district in 1973-74. After this, proper investigation and field enquiry started by approaching the selected sample according to our scheduled programme and the data were collected on cyclostyled forms. If the

sample in a particular size-group holding was not available in any particular village the sample was chosen from the next higher size group.¹¹

Even when the sample of villages was purposive to some extent for obvious reasons of shortage of time and personnel considerable procedural care was taken to make it as representative in character as possible.

Processing And Analysis :

From the different sheets of the sample households, village sheets for gross production and costs were prepared and this enabled us to get the average yield and cost per acre for the three tracts of the District of Allahabad.

Input - Output Analysis :

Input :

The following analysis deals with the farm business as a whole on hundred and ten (110) sample farms under different size groups. Input estimates

¹¹ Due to wide disparity in the sizes of operational holding in the different tracts of Allahabad we had to limit the total no. of holdings to 110 (instead of 120) for a realistic evaluation of the general economic condition and "surplus" generation of the farmers in the district.

have been made by taking into consideration human and bullock labour, seeds, manures and fertilizers, irrigation, revenue and rent for leased in land, depreciation and interest. The total input per acre of cultivated and cropped area for the three regions of Allahabad district and the district as a whole are given below:-

Table No. 1

Size of farm (In acres)	Number of farms	Total Input in Rupees per acre			
		Ganga-par	Doab	Jamuna-par	Allahabad district
0 - 2.5	17	523	485	427	478
2.5 - 5	26	470	433	373	425
5 - 7.5	21	492	445	345	427
7.5 - 10	20	456	372	282	370
Above 10	26	399	358	289	349
(Per Acre Input for Total for 5 groups)	110	2340	2093	1716	2049
Average per Acre	120	468	418.6	343.2	409.8

Per acre estimates give the value of inputs and also declining trend with increasing size group of operational holding. This shows economies of scale for bigger holdings due to better utilisation of the indivisible factors of production. In terms of money value of inputs human labour and bullock labour are the most important items of the cost in the smaller farms. On the other hand high yielding varieties programme, fertilizer, irrigation charges and depreciation on the capital assets (fixed capital) is the more important cost on the medium and larger holdings as below:

Table No. 2
Cost Components (Allahabad District)

Input Factors	Size of Farms (in acres)				
	0-2.5	2.5-5	5-7.50	7.50-10	Above 10
Human Labour	33	33	28	20	20
Bullock Labour (Tractorisation)	32	32	26	20	15
Seed	7	7	9	12	12
Manures and Fertilizers	7	7	10	15	18
Irrigation	4	4	6	10	10
Land Revenue & Development Tax	-	-	5	8	10
Depreciation	8	8	9	10	10
Extra	9	9	7	5	5
Total	100%	100%	100%	100%	100%

Output :

Output is the total produce raised on a farm in both kharif and Pabi sowing seasons. The value of output is its money value. The gross output and net output per acre of net area sown is given in the table below :

Table No. 3

Per Acre Output By Size Groups For Regions And Allahabad District

Size of farm	Gross income per acre	Net Income per acre	No. of holdings	<u>Net Product per Acre</u>		
				Ganga-par	Doab	Jamunapar
0 - 2.5	1020	542	17	559	557	510
2.5 - 5	935	510	26	533	519	476
5 - 7.5	913	486	21	510	503	445
7.5 - 10	834	450	20	504	460	391
Above 10	789	440	26	489	457	376
Total	4491	2430	110	2595	2496	2198
Average per Acre product	898	486	110	519	499	440

Output is the total produce raised on a farm both as main and by-product, whether sold, stocked or consumed by the family. Two broad conclusions are evident from the above data:

(1) The net income/gross income per acre of the smallest farms is greater than the per acre value of output of the holdings above 10 acres, which shows that the intensity of cultivation is higher in the small holdings.

(2) There is a declining trend of per acre product.

Input - Output Ratio :

The input - output ratio is expressed in terms of value of output to value of input. The following table gives the input - output ratio by size of farms:

Table No. 4
Input - Output Ratio By Size of Farms

Size of farms (Acres)	Output per Acre (Rs.)	Input per Acre (Rs.)	Ratio I/O	No. of holdings
0 - 2.5	542	478	1.12	17
2.5 - 5.0	510	425	1.20	26
5 - 7.5	486	427	1.14	21
7.5 - 10	450	370	1.20	20
Above 10	440	349	1.25	26
All Farms	2430	2049	1.18	110
Average	486	410	1.18	110

The input output ratio for all farms works out to 1.18 (nearly 1.20) which compares favourably with certain other estimates in the Farm Management Studies in Uttar Pradesh as well as the recent literature of the Planning Commission, which gives an estimate of getting Re. 1 by investing Rs. 2. The point which should be specifically noted is that the estimate of Planning Commission was ^{for} both the private and state investments for calculating inputs whereas we have taken into account only the costs incurred by the farmers during the agricultural year 1973-74.¹²

The Input Output ratio as found out in the different size groups of holding shows a slight increasing trend with the increasing size. The smaller farms have a greater intensity of cultivation which is also evident from the higher percentage of manual labour and bullock cost. This results in greater cost of cultivation per acre while also greater net incomes per acre for the marginal and smaller holdings (from 0 - 5 Acres). As we gradually shift to larger holdings we find that the improved package of inputs like high yielding varieties seed, fertilizers and assured irrigation increases and the medium and big cultivators also enjoy a certain economies of scale which reduces per acre cost of production considerably. These two forces inter-play in

¹²Supposing for every Re. 1/- of cost incurred by the farmers Re. 1/3 invested by the State as well in the development and irrigation schemes then our results are 2 : 1.2 as against P.C.S. 2 : 1 which is nearly comparable.

the farm economy under study and the net result is to some extent visible from the tendency of I/O ratio to rise, although to a very small extent. The decrease in cost between the lowest and the highest size group is much more sharp (27 per cent) than the decrease in net incomes (19 per cent) for the district as a whole.

Optimum Holding :

The problem of the optimum holding (say 3 x economic holding size) has great importance in land policy. No clear picture about the relative efficiency or productivity per acre could be had with regard to the small or large farms in Allahabad. Our survey suggested that a farmer could get substantial incomes on even 5 - 6 acres of well irrigated soil condition with cash crops like potato, vegetables or even a normal cropping pattern of high yielding varieties of wheat and rice, which was largely the case with the Gangapar tract with underground water level quite high as compared to other regions. On the other hand large holdings above 5 hectares in Jamunapar with 50 per cent of the total area under them are generally unproductive and depict the input - output pattern of a static and underdeveloped agricultural economy. Most of the Jamunapar tract and certain areas of Doab have no assured irrigation facilities. An eminent economist after considering the

Indian farm management data reaches the important conclusion : "that (above the 5 acre size) there is nothing to choose between large farms and small farms in respect of cost efficiency and productivity; that Indian agriculture is typically a scene of constant return to scale; and that ceilings are size-neutral."¹³ The same broad conclusions about the relation of efficiency of farming and size of holding is got from the studies in Punjab by Ladejinsky and others and U.N. Progress Report on land reforms of developing countries.¹⁴ However, too small and fragmented piece of land is not suitable for progressive agriculture with high costs and meagre farm incomes which hardly provide for the subsistence of the farmer and his family. Often we found in our investigation that such cultivators owning 2 - 3 acres of land only generally took to certain side jobs to supplement their incomes and they may be regarded as the section of farmers needing a new institutional framework and economic planning to make them viable units of cultivators.¹⁵ Elsewhere Dr. Shridhar Misra comments :

¹³ Khusrro : Economics of Land Reform and Farm size in India - p. xii Introduction.

¹⁴ Report of Land Reform : United Nations, p. 140. (Fourth Progress Report, 1966)

¹⁵ Chapter VI and VII for details.

"Such a shift in the structure of holdings is good as far as it goes, but it does not go far enough to raise agricultural productivity because the mass of new tenure - holders lack, at least for the time being, entrepreneurial ability as well as the necessary means to operate their holdings efficiently; and therefore, the income of cultivators at the bottom who form the big base of the cultivating pyramid has not been raised to any appreciable extent."¹⁶

Land Revenue Policy For Allahabad District :

Earlier the broad principles governing reform in agricultural taxation has been discussed.¹⁷ The land revenue should become a progressive tax based on the estimate of farmer's net product. In the words of the ^{U.S.} Taxation Enquiry Committee : "It is our considered view that the soil classification, which also takes into account the capacity to produce, should continue to be the base of land revenue assessment."¹⁸ However, the expert body is of the view that in the reform of the direct agricultural taxation due regard be taken of the

¹⁶ Dr. S. Misra : Land Reforms and the Structure of Holdings in Uttar Pradesh - The Indian Journal of Economic, Vol. LIV, Part IV April 1974.

¹⁷ Ch. VI & VII for details.

¹⁸ Taxation Enquiry Committee 1974, pp. 54-55. (U)

changed economic conditions brought about by huge public investments in the farm sector in the creation of development blocks, technical know-how, construction of tube-wells and other modern inputs, and soil classifications should be fewer, not more than 3 - 4 in any case. Taking into consideration the geo-physical conditions of Allahabad and the impact of planned development on the agricultural sector, the district can clearly be divided into three assessment circles comprising villages possessing a general similarity of soil and physical character : the Canganar, Doab and the Jamunapar tract. From our own investigation and taking into consideration the available literature on the district in the form of Gazetteer, District Census Handbook, reports of the various Five Year Plans, and after consultation with the local personnel of revenue administration and agriculture, we have come to the conclusion that Canganar is the best productive tract in Allahabad district, second place be given to Doab and Jamunapar is the least agriculturally developed region, particularly the southern tehsil of Meja which is a part of the Pundellkhand region of Uttar Pradesh.¹⁹

¹⁹For details see Ch. VIII on Economic Profiles of Allahabad District.

The next important question is as to what percentage of the net produce value, should be charged by way of basic land revenue. We need a tax and revenue system which will favourably respond to changes in money incomes and thus reduce the need for additional tax measures which should have administrative feasibility. Looking to the inter-sectoral equity and the greater importance of agricultural sector than non-agricultural sector in Uttar Pradesh, the Taxation Enquiry committee has recommended 3% per cent of agricultural incomes as is the case with income tax collections as percentage of non-agricultural incomes. But the average size of holdings in the Allahabad district (which is a part of eastern economic division of Uttar Pradesh) is about 2.5 acres only while in many other districts of the western Uttar Pradesh the average size of holding is 5 acres and irrigation conditions are also much better. Hence we have taken our basic rate $1\frac{1}{2}$ - 2 per cent in the different tracts of Allahabad. Of course the larger holdings and the affluent section of farmers will give 3 - 4 per cent of the net product in our proposed scheme of taxation which will be comparable to the total tax incidence (direct and indirect) in the urban sector. Since our survey included some more irrigated blocks, villages while at the same time the less developed and irrigated villages, the average productivity

conditions have been found out. It was, therefore, not found necessary to further divide the sown area into irrigated and non-irrigated for purpose of revenue fixation. Secondly, in the coming years a sizeable acreage shall become irrigated in the district looking to the various minor and major schemes of irrigation in the private and public sectors. The land revenue policy should take into account the new possibilities of production and prices also and infact there should be automatic changes in the revenue demand with changes in productivity and prices.²⁰

Agricultural Surpluses :

In the Farm Income Analysis (Table 5) we found that 5 Acres was the absolute minimum size of holding giving an income required for basic subsistence to the family. The size group 5 - 7.5 Acres could easily give incomes of 2500 to 3000 rupees which is today officially regarded as the poverty line for minimum requirements of a household.²¹ The real disposable agricultural surpluses in the district of Allahabad are obtained from holdings of more than 7.5 acres which may be regarded as a cut off point in our investigation of the problem of resource

²⁰Refer to Ch. : VII

²¹Planning Commission, Fifth Five Year Plan, Govt. of India, p. 16.

Table No. 5

Frequency Distribution of Sample Households of Operational Holding Groups and Farm Income Groups

Size groups of operational holdings (Acres)	No. of House- holds	(In Rs.)				
		Upto 500	500 to 1,000	1,001 to 1,500	1,501 to 2,500	Above 10,000
0 - 2.5	19	1	9	9	-	-
2.5 - 5	25	-	-	5	16	-
5 - 7.5	21	-	-	-	5	-
7.5 - 10	20	-	-	-	-	-
Above 10	25	-	-	-	-	1
Total :	110	1	9	14	21	1

P.F. The thick line in the table indicates Poverty Line

mobilisation through direct agricultural taxation in this district. We believe that taking into account the socio-economic profiles of Allahabad, its soil-climatic conditions, average size of operational holding and the relative place of the district as compared to eastern Uttar Pradesh and the State as a whole, this size of holding provides a minimum size of holding suitable for a progressive agricultural holding tax which is one of our main objectives of study. If we regard this size as a typically economic holding for Allahabad district²², its three times size, 20-22 Acres may be regarded as the ceiling limit which broadly agrees with the 18 acre limit put up in the ceiling of land holdings act 1973, of Uttar Pradesh.

But the holding size is not the only consideration because our investigation deals precisely with the disposable incomes of the farmers. Looking to 48 per cent, 26 per cent and 18 per cent as the respective irrigation proportion to cropped area of the Gangapur, Roab and Jamunapur regions smaller holdings in Gangapur have a much higher crop intensity than the comparative size group in the Jamunapur tract. Roab comes in an intermediate position. This explains the relative differences for the proposed scheme of basic rates and marginal increments for the different size group and holdings in the three tracts of Allahabad district. We are not in

²²Refer to Ch. IV for Economic Holding.

agreement with the view that there should be parallel provisions for dealing with agricultural income and non-agricultural income. The structure of agricultural income distribution is entirely different from that of non-agricultural income especially after the imposition of a land ceiling to which there is no urban parallel, secondly agriculture sector contributes less by way of indirect taxation and even allowing for its lower per-capita income the rich farmers should pay 3-4 per cent of their net produce which is fair from all considerations and is much less than the proportion of the produce value which was reflected in the rent rates (12 - 15 per cent) fixed in the earlier settlements in pre-Independence period.

Jamunapur Tract - (Special Considerations) :

For the largest size group of holdings above 10 Acres, the land statistics of Allahabad district is skewed in favour of the Jamunapur tract whose substantial proportion is a part of the Bundelkhand region of Uttar Pradesh. The average size of holding in this area is larger than in the other parts of Allahabad district but the productivity is low as discussed earlier for reasons of soil, underground water and the general availability of assured irrigation. Total number of holdings of size

above 5 hectares (12.5 Acres) in the district area

16,975.²³ The percentages for the three tracts are as below:

Table No. 6

Percentage of Operational Holdings Of More Than 5 Hectares

Region/Allahabad	Area Percentage	No. of Holdings Percentage
Ganapaur	13	16
Doab	20	24
Jamunapaur	67	60
Total	100	100

This means that about 60 per cent of the larger holdings above 5 hectares are in the Jamunapaur tract covering about 67 per cent acre. The tehsilwise data is given in the appendices.²⁴

For estimating the net agricultural incomes we had divided each geographical region into 'more developed blocks' and 'less developed blocks' and taken 2 representative villages from each type of block taking into consideration the general agricultural development. The

²³Census of Holdings 1970-71. Above 10 Acres the no. of holdings are 24,458.

²⁴See Annexure 9.2

distinct topography of the Jannapar could not be clearly evolved by such a small sample size. The villages Padri (Chaka block) and 'unai (Meja) gave quite good production figures with sugarcane, potato, wheat and rice coming in the cropping pattern and the farmers using all the advanced techniques of agricultural production. The Chaka block which is quite an old block (opened in 1959) has an irrigation percentage of 41 per cent with net cropped area which compares very well (and is in fact more) than many of the blocks of Roht and the Gangapur region.²⁵ Karchhana tehsil as a whole has developed in recent years aided by State and Agricultural Maini Institute. In the Jannapar Chankarpatti and Wagon are more undeveloped agriculturally. The two less developed villages taken by us in Jannapar were Bhaddoda and Tori in Chaka and Meja Development Blocks respectively.

With a large percentage (60 per cent) of holdings and 67 per cent area in the largest size group as compared to Gangapur and Roht the rules of average production of a holding cannot be very well applied in the case of Jannapar region. The holdings of more than 5 hectares and irrigation conditions available do provide a base for progressive rates vis-a-vis the other regions of Allahabad.

We have earlier observed that 96 per cent, 93 per cent and 85 per cent of holdings are below 7.5 Acres respectively in Gangapur, Roht and Jannapar. Our tax

²⁵ Agricultural Development Index (Appendix 9.1)

policy does not envisage to net the surplus produce of these cultivators under a progressive tax system. They will pay only a nominal rate of a few rupees per acre on the prevailing rates. The progression starts from 7.5 acres. In the Jamunapar we propose to divide the highest group of holdings into irrigated and non-irrigated taking 20 per cent as the proportion of former group because 18 per cent of area is irrigated in the Jamunapar. The tax incidence for this group of farmers is placed at 3 per cent which is equal to the Doab rate but less than the Cangapar rate. The other 80 per cent of the cultivators in the highest group will be taxed at the same rate of $1\frac{1}{2}$ per cent as their counterparts in the previous size group of 7.5 - 10½ Acres of holdings. This is how we propose to get hold of the disposable incomes of the rich farmers (having larger holdings) in the Jamunapar while at the same time giving due consideration to the problem of lack of assured irrigation and less developed agricultural potential in the region as a whole.

Estimate of Revenue Demand :

One of our objectives of enquiry is to suggest in a concrete way the possibilities of fresh mobilisation of agricultural surplus through a progressive land taxation scheme which we have suggested earlier. It is now a self-evident fact to us that there is a resource potential created in the agricultural economy of Allahabad

through a long period of twenty five years of planned development and heavy public investments which calls for a reappraisal. With the paucity of primary data collected by us and obvious short comings of land possession and soil statistics in the absence of fresh revenue settlements in Allahabad for a long time,²⁶ it is too much to suggest a precise figure suitable for revenue demand of this district in the years to come. However, we have tried to build up certain estimates taking help from the net product calculated for the three regions of Allahabad from our sample data and using the census of Holdings Statistics of 1970-71. This gives us a pattern of progressive rates of land revenue with due consideration for the relative productivity differentials of the three regions:

²⁶ 1915 - Year of Completion of Last Settlement Revision of rent and revenue carried out in 1941-42 except in tehsils Meja and Karchhana.

Table No. 7

Estimate of Mobilisation of Agricultural Surpluses Through
Direct Taxation

Size group of Opera- tional Holding (Acres)	Gangapar		Doab		Jamunapar	
	Tax revenue (lakh Rs.)	Per Acre Incidence (Rs.)	Tax revenue (lakh Rs.)	Per Acre Incidence (Rs.)	Tax revenue (Lakh Rs.)	Per Acre Incidence (Rs.)
0 - 2.5	7.71	5.60	5.11	5.55	1.84	2.55
2.5 - 5	7.20	8.00	5.80	6.50	3.92	4.78
5 - 7.5	6.12	10.20	4.32	7.60	3.06	5.56
7.5 - 10	4.83	15.10	4.14	10.35	2.94	5.90
Above 10	14.84	20.00	15.57	13.72	21.42	11.30*
						7.00
Total :	40.34		34.94		33.18	

Total for the District = Rs. 1.08 crores or Rs. 1.1 crs.

* Two rates.

Table 7 gives a broad perspective of reform in land taxation which meets the twin considerations of equity and resource mobilisation at the same time. The progressive rates of incidence varying from Rs. 2.5 to Rs. 20.0 shall be considerably higher than the present rate of Rs. 5.17 in 1969-70.²⁷

²⁷ Board of Revenue Uttar Pradesh for Land Revenue (current Demand)

the circle rates varying from about 2 - 10 rupees. We are convinced that a holding size of 10 acre and above generates substantial net incomes ranging from 4 - 10 thousand of rupees in the different geo-physical tracts of Allahabad as is evident from our sample data shown in table 5 earlier.

From table 5 we find that out of 38 holdings having incomes of more than Rs. 4,000 25 lie in the group of more than 4 hectares, 10 of them are in the group 7.5 - 10 Acres and only 3 lie in the group 5 - 7.5 acres. We have suggested 3 - 4 per cent of taxation of net agricultural produce on this group of rich farmers with sufficient disposable incomes/^{which} is fair looking to the comparable rates of direct and indirect taxation on this income group in the urban sector. The Raj Committee²⁸ had suggested an agricultural holding tax of 2.5 - 5 per cent on the agricultural incomes (rateable value minus development allowance) of Rs. 5,000 to Rs. 10,000 range. However, the Committee had relied for the bulk of additional revenues on average holdings of a much bigger size than prevail in Allahabad district. Lakdawala's estimates have

²⁸Report - p. 42. The concept of rateable value broadly agrees with the net product from agriculture but it excludes irrigation charges.

not given a regional analysis of the proposed rate structure and a general suggestion of 12% land tax on the highest group of holdings²⁹ seems only a theoretical proposition in the prevailing economic capacity of the cultivator and the political mood of the farm lobby in India. The Uttar Pradesh Taxation Enquiry Committee has taken 3 per cent as the basic rate and 300 per cent surcharges have been suggested on the basic rate of 3 per cent,³⁰ on the holdings of 20 acres and above. In view of the proposed ceilings in Uttar Pradesh this highest land tax rate may be neglected as far as our evaluation of the possibilities of a new structure of land taxation in Allahabad district is concerned. Thus virtually the Lakdawala Committee's suggestion will range from 3 per cent to 9 per cent only.

The earlier reform measures suggested by certain economists and examined elsewhere³¹ had emphasised a progressive surcharge on the existing land revenue rates. To remove the disparity between the tax incidence of Phumidhars and Firdars differentiation of rates has been suggested which may be adopted as an interim measure pending re-settlement. However, the levying of surcharges

DEC 1974

²⁹ Report Annexure - 35 Ch. IV.

³⁰ Ibid., p. 62.

³¹ Ch. VII. & Annexure 7.2

every now and then depicts a certain basic weakness of the land taxation which is also psychologically unwelcome to the farmers. It would meet the situation if a more frequent system of revenue settlements are made in Uttar Pradesh, say after 10 - 15 years to restructure and revitalise the revenue administration and make the incidence progressive and land revenue an elastic source to the exchequer. In a developing economy inspite of the efforts to maintain a stable price level prices often increase as is clearly visible in India today. In Uttar Pradesh the terms of trade have been in favour of the farm sector to the extent of 10-12 per cent during the last decade. In the intervening period of a new settlement the land revenue should be ^{periodically} subjected to Indexation with regard to the parity prices. This is evidently no additional tax and should not entail political difficulty in implementation as is now being largely faced in the field of State taxation.

The district of Allahabad is gradually coming up on the industrial map of Uttar Pradesh. It has two Industrial Estates at Waini and Phulpur, the latter are being planned on an Area Development Approach.³² A new industrial estate with great potentialities of development is fast developing under the supervision of the local

³² Economic Profiles of Allahabad.

Motilal Nehru Engineering College. A fertilizer plant has also been approved through the financial assistance of the World Bank. There is sufficient reasons to believe that the human and capital resources of the district are promising and the fiscal policy should be a lever to mobilise these resources for the development of this district which is at present in a comparatively backward position.

This to my mind is the core of decentralised planning and the basis of evolving a new intermediate technology where industry and agriculture fully co-ordinate and productivity of the primary sector increased by increasing the intensity of cropping and equitable distribution of inputs. For removing poverty and unemployment which are the avowed aims of our five year plans the tax base should be widened through bringing in a system of direct taxes on agriculture in a manner which is consistent with increased productivity as well as with the normal canons of equity.

CHAPTER X

RECONSTRUCTION OF AGRARIAN INSTITUTIONS

(For Higher Savings and Investments)

The State of Uttar Pradesh has got large natural resources in the form of rich soil, vast arable area and perennial rivers. However, the diversification in the economy of this state has not shown any visible progress during the last twenty five years of planned development. The contribution of agriculture to the State income (at current prices) has remained at a fixed proportion of nearly 60% during the last decade¹, and even now 75 per cent of the total working population earned their livelihood from agriculture. In the previous analysis the argument has been built up that the success of the strategy of rapid economic development in Uttar Pradesh depends upon : (i) its ability to bring about a substantial rate of growth in agricultural productivity and (ii) rationalisation of the fiscal policy for the farm sector so that as the aggregate output tends to grow at a higher rate as a result of massive efforts and expenditure at planned development a fair proportion of it goes to the pool of investible resources of the public sector.²

¹Economics & Statistics Division, Uttar Pradesh.

²P. K. Tripathy : Fiscal Policy & Economic Development in India - p. 24.

One has to view the problem of resource mobilisation as a whole from the State view point and not in terms of each sector of the economy being required to pay its way. Where from are the public investments, used for the creation of various social overheads like research, education and infrastructure facilities to be found? Evidently it is the dovetailing of the requirements of the various sectors like agriculture, industry, trade, commerce and transport in an organic whole which should be emphasized. Even when it be granted that savings and investments of agriculturists were undergoing a rapid change, more savings being utilised for productive investment³ the aims of a "socialistic pattern" of agrarian economy would make it binding to levy a higher tax burden on the rich farmers with substantial marketable surplus. This will ensure both inter-sectoral and intra-sectoral equity and lead to optimum utilisation of labour and land utilisation of the economy which is the primary aim of our five year plans. The First Five Year Plan rightly observed:

"It is the essence of rapid development that, consistently with the need to raise the standards of living of the poorer sections of the community, as much of the additional incomes

³See Annexure 6.4

generated should be ploughed back into the system by way of investment for still more rapid increases in output."⁴

Fiscal Policy In a Fixed Economy :

The efforts in resource mobilisation have to be made under certain institutional and socio-economic constraints.⁵ The institutional set up of fixed economy gives scope for both the private and the public sectors to draw upon the common pool of savings, formed by the surplus over consumption in the economy. If taxation goes to increase capital formation, and not to swell administrative and non-development expenditure, total investment in the economy will be larger to the extent that additional public investment diverts to some extent the high marginal propensity to consume. The public sector's share in overall investment activity which was 50 per cent during the 1st Plan increased to 54.1 per cent during the IIrd Plan, to 60.6 per cent during the IIIrd Plan and this percentage is expected to increase to 66 during the IVth Plan. Though the predominance of the public sector may be necessary, the resource mobilisation measures of the government should not adversely affect incentive to save and invest of the private sector. After all it is the

⁴The First Five Year Plan, Planning Commission, Govt. of India - p. 50.

⁵p. n. Panchamukhi : Indian Fiscal System : Performance and Prospects, Golden Jubilee Seminar, March 1972. (Bombay University).

aggregate saving rate in the economy that is the most crucial issue for determining the taxation policy of the government.

However, in an underdeveloped economy which has a very low rate of voluntary saving as in India and Pakistan, compulsory saving through high rate of taxation is perhaps the best means of mobilising resources for development. Moreover, since economic development must be achieved with minimum inflation, taxation which is the most important source of non-inflationary finance, should be given high priority in mobilising the resources. The traditional view of public finance is that the tax proceeds should be used for the normal and recurring expenditure of the State and that the loan proceeds should be used for building of assets which yield direct returns to the economy.⁶ But in a developing economy, taxation should go beyond financing normal expenditure and supply a considerable amount of funds for investment in development projects. The traditional view does not fit into the conditions of a developing economy. However, there is a certain taxable capacity of different classes of society beyond which it is bound to have undesirable consequences.

⁶(1) A.C. Pigou, *A Study in Public Finance*, p. 36.

(ii) U.N. Report on the Domestic Finances of Economic Development - p. 8.

Purposes of Reconstruction :

If it be granted that what we are really interested in is the accelerated economic growth of Uttar Pradesh and that the proportion of aggregate savings should be much more than what they are today we have to think, besides the taxation reform of agricultural income, (already considered)⁷ institutional framework of our village life, both social and economic. To streamline this discussion to the issues relevant with our theme of discussion we may indicate some ways and means of :

(i) Increasing the market ^{of} surplus of foodgrains to the urban centres through co-operative marketing societies, and to consider the possibilities of land revenue collection in kind.

(ii) Active role of the nationalised banking system to help in financing the development of the infrastructure of agricultural development and giving a lead in the small scale saving drive in the country side.

(iii) Fiscal management and strengthening of the resource base of the local bodies, particularly the Panchayat Raj Institutions.

⁷vide Chapter VII.

Marketed Surplus :

For any meaningful agricultural planning in Uttar Pradesh we need to organise the agriculturist producers in a co-ordinated and purposive system. Whether they are small farmers or medium farmers the resource mobilisation will be much more easier if there is linking of credit with marketing functions and a much more proportion of foodgrains and other cash crops come to the urban centres or for exports than they are available to-day. This is of crucial importance for the availability of raw materials to the industry and the planning of supplies of foodgrains to feed the urban population to keep down inflationary potential.

To facilitate co-operative marketing of produce the Foodgrains Enquiry Committee had suggested the setting up of grain godas, in the rural areas as was being done in Orissa.⁸ Similar suggestions for smaller bins dispersed throughout the State have been advocated by a MAC Team reporting on the marketing of agricultural produce in Uttar Pradesh. If this could be done then the storage and warehousing problems could also be solved. Experience tells us that during the procurement of foodgrains in various centres in Uttar Pradesh, a substantial amount of grain is lost in the railway station godowns or

Foodgrains Enquiry Committee, 1957

⁸ Report / p. 118.

in the Food Corporation Centres. This state of affairs could be vastly improved.

Some progress has been achieved in recent years in forging an organic link between co-operative credit and marketing institutions. The actual progress made in effecting loan recoveries through marketing societies has been rather limited, although the proportion of such recoveries to the total recoveries of the co-operatives has been gradually increasing, as is borne out by the following table:

Table No. 1

Recoveries Effected Through Marketing Co-operatives

Year	Short-term and Medium-term loans recovered*	Loans recovered through marketing/processing societies**	Rs. Crores
			Percentage of column (3) to column (2)
1	2	3	4
1961-62	190.33	10.03	5.3
1963-64	246.76	14.98	6.1
1964-65	287.83	30.20	10.5
1965-66	279.97	33.25	11.9
1966-67	270.34	44.06	16.5

*Source : Statistical Statements relating to the Cooperative Movement in India.

**Source: Review of Co-operative Marketing 1966-67, National Co-operative Development Corporation.

Though, within a period of five years, the proportion of recoveries through marketing societies to the total recoveries of primary credit societies had gone up from 5 per cent to nearly 17 per cent, the State-wise progress was rather uneven. Four States, viz., Gujarat, Maharashtra, Mysore and Uttar Pradesh, among themselves, accounted for 92 per cent of the total short and medium-term loans recovered by co-operatives through marketing/processing societies. Even in these States where the proportion of such recoveries was high, progress was significant only in a few areas covered by certain cash crops. Thus in Maharashtra, co-operative sugar factories accounted for a major portion of loans recovered in the State through linkage. Similarly, in Gujarat, the bulk of such recoveries was effected through cotton ginning and processing societies.

In Uttar Pradesh, the scheme of linking has not some headway for certain crops though there were some instances of fictitious adjustment by some marketing societies. It was only in this State that the societies could think of compulsion by way of not accepting cash recoveries upto a particular date, and penalizing those who had not repaid in kind.⁹ The immediate offer of fresh loans after repayments were made in kind was another effective

⁹Report of the All-India Rural Credit Review Committee, p. 920. Reserve Bank of India, 1969.

incentive offered in all the districts of Uttar Pradesh. However, the link was sought to be established only between the large-sized societies and marketing societies. The small-sized multi-purpose co-operatives, cane unions and marketing federations were not involved in the implementation of the programme. Here again, the linkage was successful only in areas where most of the marketable surplus of cereals and pulses was sold in the mandies and where primaries were organized as large-sized societies managed by full-time paid staff and working directly under the Co-operative Department.

In a Reserve Bank survey of the Development of Co-operative Marketing of wheat in Meerut district of Uttar Pradesh¹⁰ it was found that recoveries through inter-linking of credit with marketing were hardly 15 per cent of the demand. This comparatively low linking was despite the provision for a penal rate of interest of 3 per cent per annum on borrowers who failed to sell their produce through the society. The Report concluded that Meerut was a commercialised and agriculturally a very well developed district, mainly owing to the cultivation of sugarcane, which, from the standpoint of marketing, was a more important crop than wheat. Since in Meerut, wheat was the largest

¹⁰ Reserve Bank of India : Development of Co-operative marketing - A survey Report 1969 - pp. 209-10.

single crop covering 3.5 lakh acres or 21 per cent of the total sown area¹¹, this trend of co-operative marketing in wheat has serious implications for foodgrain procurement, collection of land revenue in kind/agricultural planning as a whole in Uttar Pradesh.

Collection Of Land Revenue In Kind :

Recently it has been officially reported¹² that the government is thinking of the possibilities of collecting land revenue in kind. The uncertain food situation, growing inflationary pressure, and the existence of a large non-monetized sector in the country suggest to us the advantages of collection in kind.¹³ The blessing given to this proposal by Acharya Vinoba Bhave has given added significance to the issue during last 1-2 years. It is probably believed that by resorting to this shift in the method of collecting land tax the problem of food shortage could be solved in a decentralised way for each region of the country, more particularly the needs of the urban population. The eminent economist Dr. B. S. Minhas addressing the second Annual Conference of the Madhya Pradesh Economic Association referred to the

¹¹Ibid., p. 157.

¹²Parliament Proceedings April, 1974.

¹³A. C. Agrish : Direct Taxation of Agriculture in India - p. 247.

concept of "food money" and suggested that "when all the purchases of grains from the farmers were made only against food money and the sales of crucial inputs and realisation of land revenue were effected only in food money a viable and stable public distribution system would have been established."

This type of grain levy has been extensively used in Soviet Union in its earlier planning period. Although the Soviet Union has achieved a rapid growth of industrial sector, its model of development is not quite relevant to the process of planned progress in India through parliamentary democracy. Further the shortfalls of the agricultural sector in recent years suggest to us that Soviet agricultural policy and this includes agricultural taxation cannot serve as an example to be emulated by India.¹⁴ Certain other countries like Taiwan and Korea have also resorted to this system of taxation as an instrument of national food policy and to bring about wage and price controls during the emergency arising out of the war.

Administrative Difficulties :

The collection of tax in kind involves formidable administrative difficulties. Almost all the State governments of Indian Union had expressed against the

¹⁴ E. T. Mathew : Agricultural Taxation and Economic Development in India, p. 3.

collection of land revenue in kind in their memoranda submitted to the Taxation Enquiry Commission, 1953-54.¹⁵

In view of the unsatisfactory conditions of storage and the tardy progress of linking credit with marketing of agricultural produce it seems to us as not a ripe opportunity to start collection of land revenue in terms of major crop of a region. Instead we should concentrate our efforts on grain levy on the x farmers. At an all party meet on wheat policy in Uttar Pradesh, it was agreed that wheat should be procured in the coming rabi season through a system of producers levy. The State Government has also announced that land holdings above 5 acres shall bear a levy of 50 per cent of produce at the procurement price. It may be recalled that wheat procurement was done last year through traders' levy while the government had taken over the wholesale trade of wheat the year before last. Both these later attempts failed to achieve their purpose because of speculation and hoarding activity of the trading class.

It is a well known fact that the rural credit demand of the small and the medium cultivators is substantial as against the large holders who generally use their own funds or get credit from Banks for current requirements. About 20 years back the Rural Credit Survey conducted by

¹⁵ Report of the Taxation Enquiry Commission, Evidence Vols. IV parts III & IV.

the Reserve Bank had emphasized the importance of the medium and small holdings in the rural structure which accounted for about 2/5th of the pericultural produce of the country. As a result of the various land reform measures since early 1950s and the breaking up of the joint families large holdings are likely to be fewer today. In Uttar Pradesh the group between 2.5-10 Acres constituting broadly the above range of producers were about 28 per cent in number owning about 1.5 per cent of area under cultivation. If area be taken as roughly proportional to production and bearing in mind that the small and medium farmers generally resort to foodgrain production, it is evident that this group of cultivators produce a substantial amount of food crops in the State. Uniting them into "group action", provision of assured inputs like credit, water etc. and getting fair prices for their produce would have a very healthy effect on the food and prices situation in the State economy. Such organisations have not only functioned in the communist countries but non-communist underdeveloped countries like Mexico, South Italy, Turkey and Yugoslavia had widely resorted to State sponsored systems of co-operation.¹⁶

¹⁶Rural Co-operative Socialism Ch. IV.

Role Of Commercial Banks :

The Rural Credit Review Committee emphasised that while reorganisation of co-operative credit should be pursued and the Integrated Scheme implemented vigorously, "the progress of agriculture cannot be tied to the progress of co-operative credit" and that therefore, fresh efforts should be made for the entry of the commercial banking finance in the rural sector. It expressed the hope that the opportunity now offered by a dynamic agricultural sector in terms of good banking business and deposit potential, will be readily seized by the commercial banks.

It is true that because of customs and social rigidities, a large proportion of the rural population do not save even when they have the saving capacity. Economic progress requires that a part of the increased output be devoted for capital formation. But, owing to the operation of the demonstration effect, both at the national and international levels, the consumption expenditure goes on rising leaving a narrow scope for saving. Thirdly, some of the non-bank financial intermediary which offer higher interest rates attract and divert funds to speculative trade and unproductive private expenditure and come in the way of mobilisation of financial resources for development. Lastly, resource mobilisation for development is relatively more difficult in Uttar Pradesh where the money and capital markets are not well developed.

If a net-work^{of} the commercial banks or State Bank can be opened for every 5,000 of rural population and incentive rates are given to encourage small savings there could be a decisive break-through in rural savings collected. It is believed that Rs. 70-80 crores have been collected during 1974-75 financial year through small savings and this figure may be improved upon in future.

The one significant role of commercial banks is that they may help in financing the development of the infrastructure of agricultural development.¹⁷ In the past commercial banks have played only a limited role in providing agricultural finance except in some states such as Kerala which has relatively more commercialised agricultural system. Commercial banks may extend credit to agriculturists, mostly large farmers whose needs cannot be fully met by the co-operatives because of the limits on individual borrowings. Studies conducted in the tarai area of Uttar Pradesh suggest that it is profitable for the farmers to sell their produce in processed form instead of in raw form. The margin of profit in agricultural processing units is considered sufficient enough to attract capital for investment from commercial banks.¹⁸

¹⁷ Financing of Agriculture by Commercial Banks, Report of a Seminar held on Dec. 6 to 8, 1968, Reserve Bank of India.

¹⁸ Ibid., -- p. 249.

Fiscal Management :

In the assessment of sound fiscal management one should have regard both to the manner in which the State has endeavoured to raise the resources needed to meeting its commitments and also the manner in which it has deployed the resources so raised so as to get the best possible results for the expenditure incurred.¹⁹ The sixth Finance Commission has observed that there are large arrears of taxes both at the Centre and the States. It has suggested that with the increasing investments in irrigation and power projects and road transport undertakings, non-tax revenues in the form of interest receipts and dividends should be expected to become increasingly important in State finances.

The Venkataraman Committee (1964) which made a review of the working results of State Electricity Boards urged that a phased programme should be drawn up for attaining a minimum return of 11 per cent on capital invested after meeting all working expenses and depreciation. The Finance Commission, however, recommends 5-6 per cent of return on the loans advanced to the State Electricity Boards. It has been estimated that a saving of even one per cent in transmission losses will mean an additional

¹⁹ Report of the Finance Commission, 1973, p. 52.

revenue of the order of Rs. 8.5 crores per annum at the present level of generation of power.²⁰ In Uttar Pradesh Electricity Board had curtailed the transfers to the Depreciation Reserve Fund to meet the State demand for interest payments.²¹ In the year 1974-75, the Uttar Pradesh Government has increased electricity rates & it is expected to fetch Rs. 5.40 crores more.

During 1974-75 no increases were made in the irrigation rates although it has been incurring losses per year of about Rs. 6.23 crores and Rs. 3.74 crores respectively for State Tube-wells and Canals. The prime cause for losses is the distances which the power lines have to cover. It has been estimated that for the same amount of value produced in industry or agriculture the ratio of power consumed is 1:10. Even if we allow the State tubewells to provide protective irrigation to the needy farmers (bulk of them being small and marginal) there seems to be no justification for the annual loss of Rs. 350 per private tube-well which the State Electricity Board is incurring at present. By withdrawing this concession about Rs. 3 crores per annum can be saved. In view of the power shortage that Uttar Pradesh is facing for last many years and the requirements of the

²⁰Ibid., -- p. 54.

²¹Uttar Pradesh Taxation Inquiry Committee Report (1968-69).

*U.P. Assembly White Paper Dec., 1974.

overall development of the State economy this concealed subsidy to a section of affluent farmers deserves serious rethinking about the nature of the price policy with regard to production of State enterprises.

Decentralised Institutions :

If more powers and resources are delegated to local bodies at district, block and village levels, the bottleneck in the formulation of a progressive taxation policy in the farm sector could be removed. We have earlier,²² emphasised the psychological factor working in all traditional communities which want 'visible' benefits for any revenues that the State collects from them. It is to be appreciated that the trend of recent State policy is in the right direction. The Panchayat cess has been increased from 10 p. to 25 p. A portion of the Land Development Tax is also apportioned to the village institutions. Certain panchayat industries are to be developed and it has been decided that a sizeable proportion of the primary schools' requirements of office establishment would be purchased from these panchayat industries. The Uttar Pradesh Panchayat Raj Resources Committee had suggested an education cess of 25 paise per rupee on land revenue. The Maharashtra and Tamil Nadu governments have adopted a very well worked out system of cesses. To regenerate the languishing local bodies Uttar Pradesh Government

²² Ch. VII Reform of Agricultural Taxation.

should also consider an education cess as recommended by the Donchayst Raj Committee.

Resources for the Fifth Plan :

As Uttar Pradesh, during the 25 years of the planning era has been left behind the other progressive States of the country, it is necessary that economic development in the State during the coming decade takes place at a rate higher than that of the country as a whole. The Planning Department of Uttar Pradesh has, therefore fixed 6.5 per cent annual growth rate as against 5.5 per cent fixed for the country as a whole. It is to meet the requirements of this accelerated development that we need to canalise the private savings and food surpluses through the Co-operative institutions and the now rising public institutions particularly the commercial banking structure. The wild progression in agricultural taxation suggested earlier will not be a disincentive to higher investments and productivity. Further if the revenue resources are more liberally devolved to the local institutions for village uplift programmes the implementation of land taxation on all the classes (irrespective of acreage) should not be difficult.

The total revenue receipt of Uttar Pradesh increased from Rs. 156.06 crores in 1960-61 to Rs. 664.34 crores in 1973-74 (P.F.), an increase of 325 per cent.²³

²³ ^{UP} Taxation Enquiry Committee (1974) p. 2.7.

Tax revenues supplied 36.8 per cent of the total revenue receipts of Uttar Pradesh in 1960-61, but the share fell in 1973-74 to 27.1 per cent. The fall was not so much visible for all States taken together where tax revenue provided 40.1 per cent of the total revenue receipts in 1960-61 and 38.7 per cent in 1973-74. States' dependence on centre increased and its contribution in 1973-74 was 41.3 per cent of the total revenues (for Uttar Pradesh 58.8 per cent).²⁴ The Sixth Finance Commission opines:-

"The growing indebtedness of the States to the Centre and the significant diminution in the net flow of resources from the Centre to the States on capital account have got great concern in recent years. The Central and the State Governments alike have been anxious to seek a satisfactory solution to this problem."²⁵

The Finance Commission has by liberal interpretation of the provision in regard to grants in aid under Article 275 has given Rs. 199 crores to Uttar Pradesh for the needs of primary education, medical and public health and welfare of scheduled castes and tribes and backward classes. This will largely be responsible for the large balance from current revenue of more than Rs. 400 crores

²⁴Ch. I -- also this point has been referred.

²⁵Report of the Finance Commission, 1973, p. 9.

compared with Rs. 120 crores in the Fourth Plan period. Another substantial advantage obtained by the State from the Sixth Finance Commission which was specifically asked to go into the non-plan capital ran of the States and suggest changes in the existing terms of loan repayment was a debt relief of Rs. 151 crores. The effect of this is not seen in miscellaneous capital receipts because of bigger items due. The following table no. 2 gives in brief how the resources for the Fifth Plan are proposed to be raised:

Table No. 2

State Resources for The Fifth Plan

(Rs. in crores.)		
Items	Fourth Plan Provided	Fifth Plan
1	2	3
I. States Budgetary Resources:		
1. Balance from current revenues	120.45	103.35
2. Contribution of public enterprises	12.27	33.16
3. Loans from Public (Net)	67.20	147.60
4. Shares in Small Savings	115.00	270.00
5. State Provident Fund	51.39	73.10
6. Miscellaneous capital Receipts	23.47	(-)179.54
Total I	289.80	747.67
II. Additional Resources Mobilisation by the State Government	101.97	250.00
III. Negotiated Loans and State enterprises Market Borrowings	37.89	264.62
IV. State Total Resources	529.66	1262.29

68

1974

Source : Taxation Enquiry Committee, p. 2.48.

The Fifth Plan would need an outlay of Rs. 3,539 crores at 1972-73 prices according to the original estimates of the State Planning Department. This includes Rs. 770 crores, earmarked for the National Programme for Minimum Needs. However, in view of the tight resources position that developed, the size of the Fifth Plan has been reduced to Rs. 3,000 crores. According to Uttar Pradesh Finance Department the State resources for the Fifth Plan will be of a magnitude of Rs. 1262.29 crores as given in Table no. 2. Evidently the Plan aims at relying more on internal resource mobilisation as Rs. 250 crores have to be raised in this Plan as compared with Rs. 102 crores in the Fourth Plan. There was a shortfall in the Fourth Plan in the mobilisation of additional resources by 41.7 per cent. However, looking to the substantial tax efforts in 1974-75²⁶ (the first year of the Fifth Plan) prospects for resources in this plan seem to be much better.

The State Government had desired a Plan outlay of Rs. 338.60 crores for 1974-75 but the Planning Commission sanctioned only for Rs. 255.19 crores only. For various important expenditure items like electricity generation, Sarda Sahayak Project, Industry and Housing the State Government has been in need of an extra fund of

²⁶ Economic Condition -- White Paper Dec. 1974. Uttar Pradesh Assembly, proceedings, p. 12 Table 1

Rs. 179.98 crores. This raises the necessity for the first year of the plan to Rs. 435.17 crores. For the year 1975-76 the State Govt. had asked for Rs. 498 crores but the sanctioned amount from the Planning Commission has been only Rs. 406 crores after many crucial meetings of the Planning Body and the Chief Minister and Finance Minister of Uttar Pradesh. Top priority in regard to allocation of money has been given to irrigation and power which now account for an investment of Rs. 249.62 crores. Agriculture and allied sectors receive 43.99 crores.

Problems Of Resource Mobilisation :

This brief review of the financial trends of Uttar Pradesh and requirements of resources for the Fifth Plan period make it evident that problem of surpluses for investment requires constant re-assessing. In fact that is the difficult job of the public finance which has been rendered even more difficult by the federal system of financial relations. The centre has to its credit much more elastic sources of revenue like income tax, excise, customs etc. Further the tax measures of Union and State sphere of taxation impinge on one another. In the recent budget of 1975-76 of the Union Govt. an increase of taxation of Rs. 288 crores has been made wholly through indirect taxes, because investments in the key sectors "must be financed in a non-inflationary manner". Top priority is to be given to food and energy sectors, fertiliser

production being planned to be increased by 60 per cent in 1975-76 which will save Rs. 360 crores of foreign exchange.²⁷

In previous chapter we have at length examined the case for a much more progressive land revenue than exists today. Recent measures by the State Govt. , have made the taxation on agriculture rational yet much more needs to be done. We believe that only a fresh settlement could do justice to a system which is quite outmoded to the present needs of development planning. With the Census of Holdings already done and consolidation operations of most of the districts completed, it is now possible for a simplified code of soil classification for each district of the State. However, the land records and revenue administration need further strengthening. The Planning Commission's Task Force on Agrarian Relations in March, 1973, recommended "an alternative administrative structure" exclusively for land reforms, headed in each State by a Land Reforms Commissioner with the rank of the first member of the Board of Revenue and working directly under the Minister for Land Revenue. If the State Govt. is really serious about reforming the land revenue system then it needs consider the creation of a new cadre of district level officers for making the up-to-date land ownership

²⁷ In the Uttar Pradesh Budget for 1975-76 available at the time of writing these lines, Rs. 302 crores are allocated to agriculture, irrigation and power sectors out of total expenditure of Rs. 1057 crores.

records and also entrust to them the survey of the soil conditions of their respective areas in command.

The Uttar Pradesh Taxation Enquiry Committee (1974) clearly visualised the need for collection and up-to-date maintenance of figures of area under different crops and fields, soilwise and tractwise. Information about area under private resources of irrigation and also separate yields of irrigated crops and sourcewise have to be regularly obtained. Further the committee recommended Farm Management surveys in all the districts.²⁸ All these will need a larger number of crop cutting experiments and more staff for gathering primary data from fields.

Our study of the problem of resource mobilisation through agricultural taxation has clearly revealed to us a definite base for higher rates of land revenue, particularly the affluent section of farmers above 4 hectares of land holdings. Public investment under the Plans has contributed substantially to the development of agriculture. Shift in terms of trade in favour of agriculture of the kind witnessed in the last decade has further increased agricultural incomes. The contribution of agriculture to the public exchequer has been insignificant, the incidence of direct taxes on agriculture being hardly 1 per cent of the net domestic product from agriculture.

^{up}
28 Taxation Enquiry Committee 1974 - p. 68.

There has been some capital formation in recent years²⁹ but savings mobilised from the rural sector through financial institutions and co-operative agencies have been relatively low. In this chapter in the earlier portion we have analysed, at length the unsatisfactory position in regard to the co-operative marketing of food-grains. 41 per cent rise in cereal prices during 1973-74 is a clear evidence that the institutional framework of planned agricultural development has yet not been constructed in India. Throughout our analysis of the problems of resource mobilisation we have pin-pointed this weakness in our rural structure and recommended some sort of "group action" for our farm economy in all its operations. It may be clarified that it is not necessary that we resort to collective Farming or Joint Co-operative Farming in the first instance. Since we are to function within a democratic mould all that is needed is to increase the viability of the small holdings which are too many in Uttar Pradesh. Above all we have to revitalise the local bodies in the village to make them the real growth agent in agricultural sector. In advocating progressive rates of land taxation we are working under the premise that the public sector has the primary responsibility for providing the social and economic overhangs of development.

²⁹ Economics & Statistics Department - Survey, p. 2 of this chapter.

(11) H. M. Patel : Banks after Nationalisation, Commerce, Annual No. 1974.

CHAPTER XI

FINDINGS AND SUGGESTIONS

Uttar Pradesh, with large area and population, has not been able to fulfil the pre-requisites of a developing economy. The State has several natural factors to its credit, like the perennial rivers, sufficient under-ground water resources and the fertile land-~~scape~~ known as the famous Indo-Gangetic Doab. The State's agricultural productivity did not show signs of a breakthrough in the first phase of planned development. Coupled with lack of industrial growth and very inadequate infra-structure the per capita income in Uttar Pradesh has remained at a low figure of Rs. 276 in 1970-71 (at constant 1960-61 prices) against the all India per capita income of Rs. 347.

It has been emphasised in the dissertation that the key to economic development of Uttar Pradesh lies in a more dynamic role of its agricultural sector which happens to occupy a pre-eminent position in the State economy. Agriculture and allied sectors contribute about 60 per cent of the State incomes and provide employment to 75 per cent of the work force. Despite this income and occupational structure in Uttar Pradesh the direct taxes contribute hardly 1^(one) per cent of the net domestic product

from agriculture. Savings mobilised from the rural sector through financial institutions and instruments are also relatively low.¹ The essence of the process of transformation of the static and stagnant economy of the State into a self-reliant and self-generating one lies in the effort to push up levels of investment, which would increase per capita incomes and diversification of the occupational structure. The resource difficulties faced by the State could be relieved to some extent by fair and progressive land taxes.

A glimpse of the world experience of the developing countries shows how a productive agricultural sector can be instrumental in providing not only food and fibres to the non-agricultural sector but also the much needed capital resources in the early stages of growth. A review of the economic development of Japan, China, U. K. and other developing countries like Korea, Taiwan, Ghana etc. clearly bear the truth of this Statement. It needs to be realised that a backward economy of Uttar Pradesh has an adverse effect on country's march to progress in a democratic federal polity. The State should mobilise its own resources besides what it can reasonably expect to get from central taxes and grants-in-aid.

¹ Govt. of India - Draft Fifth Five Year Plan, Vol. I, p. 59.

Agricultural Productivity :

Outlay on agriculture and irrigation has been stepped-up from about Rs. 70 crores to Rs. 370 crores in the Fourth Five Year Plan in Uttar Pradesh. As a result of direct State encouragement, new opportunities created by increased public investment and increased credit facilities, private investment in agriculture also increased. The number of villages electrified rose from 110 in 1950-51 to 29,415 by the end of the Fourth Plan period and the number of private Tube-wells/Pumping Sets consuming electricity which was only 635 in 1950-51 increased to 216,446 by the end of the Fourth Plan period.² In spite of the shortage of chemical fertilizers, the use of N_2 , P_2O_5 and K_2O reflected a steady progress since the second Five Year Plan.³

A major break-through in agriculture was introduced by the rise of high yielding varieties coupled with the availability, of assured inputs, particularly water to a large proportion of cultivators in all size groups. The new strategy is based on more crops a year and higher yields per crop with emphasis on agricultural research and farm management. The index of wheat production shows a

²Source : Uttar Pradesh State Electricity Board.

³Source : Fertilizer and Allied Statistics Uttar Pradesh, Table No. 1.

very gratifying increase of 178 per cent (with 1950-51 = 100) of potatoes by 162 per cent and of rice by 89 per cent in 1971-72.⁴ A perusal of the inter-State figures of per hectare yield shows that while per hectare yield of pulses in Uttar Pradesh during 1970-71 was higher than that in any other State of the country, and the All-India average as well, and that of potato and wheat was almost at par with the All-India average, the same cannot be said of other crops like rice, maize and sugarcane. Even in wheat, the State has to go a long way to come up to the level of Haryana, Punjab and some other States.⁵

We are practically reaching the limits of extensive cultivation and the scope that remains for increasing output by increasing the area under cultivation is only marginal. The main brunt of the task of increasing agricultural production and achieving the plan targets in future is bound to fall, therefore, on increased productivity and on reducing inter-regional productivity differences. The Fifth Plan of Uttar Pradesh wants to increase the crop intensity from 130 per cent to 150 per cent particularly by creating an additional irrigation potential of 22.18 lakh hectares from major and medium

⁴Uttar Pradesh Ke Pramukh Krishi Ankane 1950-51, 1971-72.

⁵Uttar Pradesh Fifth Five Year Plan - p. 61.

irrigation schemes⁶, besides massive efforts to increase the facilities of minor irrigation.

Planning For Viable Units: Need Of Resources :

Agricultural planning in Uttar Pradesh needs a fundamental re-orientation to get optimum utilization of its natural resources and achieve simultaneously a faster rate of growth. We have analysed at length in Chapter IV the defects of the land system and the structure of holdings in Uttar Pradesh. Broadly we are in agreement with the Agrarian Reforms Committee of the Congress (1948) that the existing pattern of agrarian economy (in our case Uttar Pradesh) is so complex and the problems which it has to face are so variegated that no single uniform method of land utilisation can meet the requirements of the situation.⁷ Broadly speaking the approach to the problems of the farmers with less than 5 acres of holding (constituting 84 per cent of the whole) and owning 41 per cent of cropped area in Uttar Pradesh should be different from those cultivating more than 5 acres each. The problem of viability is largely related to the former class of farmers and it has to be dealt with by diverting the new entrants in labour force to the non-agricultural

⁶Fifth Plan Uttar Pradesh, p. 117.

⁷Agrarian Reforms Committee - Report, p. 8.

jobs which may not necessarily involve the transference of population from rural to urban areas.

We have suggested some reforms in the land tenure system like putting an end to the harmful system of share-cropping and ~~even~~ encouraging owner-cultivation, and a sort of 'group action' to improve the economic strength of the small cultivators. However, the various progress reports on land reforms in the underdeveloped countries⁸, suggest that land reform is only a pre-condition for agricultural development and should be necessarily followed by massive investments in the form of assured inputs, facilities of institutional ^{credit} and marketing, roads etc. To some extent the lower ceilings will be able to shift the resource base in favour of the smaller holders. But the progressive land taxation must generate substantial resources needed for financing and providing a more productive base for employment whether agricultural or non-agricultural in the rural sector. In the developing countries where the average earnings per capita are low, there exist acute disparities in the incomes which normally correspond to the disparities in the distribution of productive assets. The basis for increasing the share of agricultural taxes in the State revenue lies in acute disparities in the distribution of productive assets and incomes of the cultivators.

⁸U.N., Progress of Land Reform, 1965.

Resource Mobilisation With Equity :

A critical examination of the land taxes in Uttar Pradesh gives us two main defects :

- (1) Total inelasticity of the agricultural incomes.
- (ii) Inter-Sectoral and Intra-Sectoral differences in tax burden.

The land revenue system in Uttar Pradesh has evolved through a series of land settlements which fulfilled a different purpose of the alien rulers and is totally inadequate for the requirements of planned economic development. Public investment under the Plans has contributed substantially to the development of agriculture. With the anticipated growth of agricultural production and guaranteed higher support prices for major agricultural products it is reasonable to expect agriculturists to make a larger contribution towards the financing of the development effort. We have suggested more frequent settlements (say after 10 - 15 years) and in between indexation of land revenue rates with the parity prices. This is in broad agreement with the various bodies that have studied State Taxation in recent years like the Uttar Pradesh Taxation Enquiry Committee (1974) and the Taxation Enquiry Commission (1953-54).

That there is a wide inter-sectoral and inter-regional disparity in the burden of taxes, has been reported in various official and non-official studies. The Uttar Pradesh Taxation Enquiry Committee (1969) found out that taking both the direct and indirect taxes together rural households paid 2.87 per cent and urban households 11.35 per cent of their respective expenditure.⁹ The incidence of the indirect taxes is also much less on the rural sector and the State Government has relied on these taxes heavily for its finances since 1960-61. In the all India context Ved Gandhi estimated that per capita taxation was Rs. 8 in agriculture and Rs. 36 in non-agricultural sector in 1950-51 which rose to Rs. 14 and Rs. 75 respectively in 1961-62.¹⁰ The gap must have widened further in the last decade, especially after the abolition of land revenue in certain States and the reduction of its burden in others since 1967. The following comment of the Direct Taxes Enquiry Committee explains the whole issue of inter-sectoral disparity in tax burden very clearly :

"Although agriculture accounts, for nearly half of India's national income, the taxes contributed by it are around Rs. 113 crores only, whereas the contribution by the non-agricultural

⁹Taxation Enquiry Committee (1969-69), p.15.

¹⁰Ved P. Gandhi : Tax Burden on Indian Agriculture.

sector is over six times as much. In fact, tax burden on urban income is relatively so high that a tax payer having urban income of Rs. 10 lakhs is left after paying income tax with almost as much income as another person having an agricultural income of Rs. 1 lakh only."¹¹

Due to factors of historical origin land revenue rates show wide inter -- regional disparities in Uttar Pradesh, and do not adequately reflect differences in the productivity of land. Amongst the districts of the plains, the incidence varies considerably from Rs. 2.11 in Jhansi to Rs. 9.17 in Farrukhabad. The per acre incidence of land revenue is highest in Faizabad district, where the per acre net agricultural value is appreciably less than in the districts Muzaffarnagar and Bulandshahr. The reasons for this disparity in incidence owe their origin to the Zamindari system in the State. The amount now payable as land revenue is simply the rent that the tenant or sub-tenant was required to pay under this system. In cases where the intermediaries chose to retain some land for sir and khudkasht they had a different rate. For Phundhars the revenue rates were reduced to half.

¹¹ Direct Taxes Enquiry Committee - Govt. of India, p. 41.

Potential Productivity :

A rational approach to make the land revenue an equitable and progressive tax is to relate it to potential productivity and size of the operational holding. We are in agreement with the findings of the Raj Committee that if we take into account the soil - climatic differences, irrigation conditions and the cropping pattern, we shall have taken into account the major elements of productivity of land and thus brought all landholdings to a comparable basis.

Some economists and expert bodies have suggested either a unified direct tax system for agricultural incomes and non-agricultural incomes¹² or have suggested a mix of land revenue and agricultural income tax.¹³ In our study of the problem we found it neither pragmatic nor equitable that there should be parallel provisions for dealing with agricultural and non-agricultural income. The structure of agricultural income distribution is entirely different from that of non-agricultural incomes, especially after the imposition of lower land ceilings. The burden of indirect taxation, with Central and State, is greater on urban groups than on parallel rural groups.

¹²Kaldor & Others - 1957.

¹³Articles of Ved Gandhi & Mathew - op. cit.

Taking all these factors into account inter-group equity does not demand a parallel treatment of agricultural and non-agricultural incomes.

A separate agricultural income tax leviable only on a limited number of farmers can be made to work. Put with the increased income exemption levels now prescribed and wide tax evasions we do not think it would be worthwhile to have two distinctly separate systems of agricultural taxation entailing huge administrative expenditure and difficulties. Our purpose will be adequately served if we could find a reasonable basis for assessing potential productivity with minimal scope for arbitrariness in administration. This approach has the additional advantage that it leaves unimpaired the incentives for further effort, improvements and investments in land. Besides land revenue we have suggested that the Agricultural Development Tax and Panchayat taxes could be continued as at present to net the surplus incomes of the affluent farmers who benefit from the huge public expenditure for agricultural development.¹⁴

¹⁴Vide Chapter VII for detail.

Abolition of Land Revenue :

Attempts have been made by several States in recent years to introduce progression in taxation of agriculture through exemptions of land revenue on small holdings. As a matter of fact the issue of land revenue abolition gained ground in certain States which had other substantial sources of revenue (being industrially developed) and which were thinking to substitute an agricultural income tax for the existing land taxes because of smaller yields and comparatively large administrative expenditure. The pioneer in this respect was the D. N. K. Government, which came into power in Madras after the general election of 1967. Madhya Pradesh and Uttar Pradesh non-congress governments, followed on the same pattern of thinking. In Uttar Pradesh land revenue exemption was given to holders of less than 6.25 acres which has ^{been} again restored to ^{the} year 1974-75.

Elsewhere we have already shown¹⁵ that the demand for land revenue exemptions does not stand the major test of inter-sectoral equity. Secondly, this policy measure shall not provide any significant relief to the uneconomic holders because of its very small incidence (about 1/100th of the gross produce). On the other hand if this amount

¹⁵ Vide Chapter VI for detail.

collected through land revenue is used collectively through decentralised schemes of rural development by the local bodies it could enable us to break the vicious circle of poverty and low incomes through which a large segment of Uttar Pradesh is suffering.

The excess of tax incidence on non-agricultural over agricultural households in the higher income groups has been adequately proved. In the case of lower income groups, the inter-sectoral disparity in tax burden is less pronounced. Being a non-monetized sector the rural sector is mostly outside the ambit of indirect taxes particularly the small farmer below 5 acres of holdings. Recent studies¹⁶ bear this out that the lower income group in the agricultural sector is undertaxed as compared to his counterpart in the non-agricultural sector. Since the studies referred to above relate to 1950s, the imbalance between the lower income groups of the two sectors must have increased very much more because of the growing importance of indirect taxes, which generally fall on the consumption of non-agriculturists. We have already referred to the excessive reliance of the Uttar Pradesh Government on the levy of indirect taxes like

¹⁶(1) I. S. Gulati, Resource Prospects of the Third Five Year Plan - pp. 132-34.

(11) Ved P. Gandhi : The Tax Burden on Indian Agriculture - p. 200.

sales tax, excise etc. for the financing of its plans since 1961-62.

Our approach to the issue of "Abolition of Land Revenue" cuts across the controversy whether the burden on the lower classes is a little more or less in the urban or the rural sectors. In the perspective of long period planning it is suggested that the uneconomic holders be brought in the fold of a "co-operative" institutional framework and through changing the occupational structure in the high density regions of Uttar Pradesh we could improve the land-man ratio and the per capita and per acre productivity in agriculture at the same time.

But even in the immediate future we cannot deny the importance of land revenue in the finances of Uttar Pradesh. If the collections of the small farmers are earmarked on schemes of rural uplift which may directly benefit them the social justice would be much more effectively imparted to the lower income groups. Both the recent taxation enquiries in Uttar Pradesh gathered the impression that most of the farmers did not particularly value land revenue exemption. On the contrary, they regarded annual land revenue receipts as concrete evidence in their possession of land ownership. The 'Jot bahi' provided to the cultivators has less value to them since these are

seldom kept up-to-date and in the minds of the farmers the importance of land revenue receipts has not diminished.¹⁷

Land revenue has always been a 'mass' tax with a broad-based coverage. In a democratic society endeavouring to establish a socialistic pattern of economy, it is important to provide a sense of participation to the people at large in the national development process. Since it is a nominal tax, with very little impact on the agriculturist's economic condition (who generally also takes to side jobs as indicated in chapter VI) it should be continued in the interest of maintaining the 'mass' base of a familiar tax. The Uttar Pradesh Government loses 10 - 12 crores of rupees by this act of exemption which is a substantial amount for a state which is hard pressed for resources for development. It could easily be used for constructing tube-wells on co-operative basis or improving the general infrastructure of villages in Uttar Pradesh.

Revenue Estimates :

From our empirical findings in the district of Allahabad we found out the minimum size group of holdings which may be deemed to possess a "surplus" over and above the family requirements and the cost of cultivation.

¹⁷Uttar Pradesh Taxation Enquiry Committee -- 1974
Chapter IV, p. 66.

Mostly, they were farmers of a holding size of more than $3/4$ Hectares.¹⁸ We have emphasized in all our analysis that the physical acreage will itself not suffice in identifying the farmers who have benefited from the new technology and surt in agricultural prices. Fearing this important factor in mind the major thrust of the progressive rates of taxation should be borne by holders of more than 7.5 acres of land which means the last decile in the distribution of holdings in Uttar Pradesh.¹⁹ Our estimates for Allahabad are about Rs. 1.1 crores while at present the demand on land revenue has been about Rs. 60 lakhs for last 10 - 15 years.

It has been suggested that if we follow the pattern of progression in land revenue in all the districts of Uttar Pradesh on the lines that we have projected for Allahabad²⁰ we may get from this source about Rs. 40-45 crores which is double the amount what the State Governments are getting at present (about 22 crores). This land revenue can be supplemented with suitable land development

¹⁸ Depending upon the Soil - irrigation conditions.

¹⁹ Census of Holdings 1970-71.

²⁰ The basic rates for the 5 - 7.5 Acres of holdings is 1.5 to 2 per cent of net produce in our scheme. For West Uttar Pradesh it could be easily be 3 - 4 per cent, related to agricultural productivity of the region.

tax and panchayat taxes to benefit the financial resources of the local bodies.

We have at present a land development tax, which has partially replaced land revenue for holdings between 3.125 and 6.25 acres, but has also served to remedy the inequitable distribution of land revenue burden among various size groups. We agree with the Lakdawala Committee on State Taxation, that the second need of the development tax viz. its equalising attribute will still remain (till a new Land Settlement is made).²¹ It is, therefore, being recommended that it should be continued in its present form and strengthened and supplemented by a system of land revenue surcharges on holdings above $6\frac{1}{4}$ acres, so as to make the system based on objective criteria of productivity of land and ability of the farmers to pay. Once complete Land Settlements are made in Uttar Pradesh which seem to be being planned by the State Administration, the burden of Land Development Tax could be considerably reduced to convert it into a simple Betterment Levy.

As at present the proceeds of the Land Development Tax are earmarked for specified purposes. The Act provided that 60 per cent of the collections would go to the Uttar Pradesh Rural Development Fund for being

²¹ Taxation Enquiry Committee - Ch. IV,
p. 66, 1974⁶

utilized, on irrigation, medical and public health, construction and maintenance of roads, electrification and drinking water supply. Of the remaining 40 per cent, 15 per cent is allocated to Pila Parishads, and the remaining to the State Electricity Board and the Pashetra Samitis and the Gaon Panchayats. We would suggest that through better fiscal management, the benefits from the proceeds of the land taxes "should actually flow from taxes" as the Taxation Enquiry Commission put it long ago. In its opinion "Public expenditure in India has been moving increasingly towards beneficent expenditure but it cannot be said with equal certainty that it is moving also towards economy and efficiency." For a broad-based tax on land which we have suggested irrespective of the size of holding its benefits should also influence all the strata of the agricultural community, more particularly the weaker sections of rural society. Care must be taken that it may not be monopolised by the affluent and politically aligned section which has largely been the case in the previous plan periods.

Reform Of Revenue Administration :

We suggest that the revenue administration needs strengthening. An approach to its local and apex offices reminds us of the pre-Independence times when land records about ownership and possession had no sanctity. The

published data of revenue demand in Uttar Pradesh has easily a 10 year gap and the records in its different offices show wide differences and incomparability. We agree with the Uttar Pradesh Taxation Inquiry Committee, which has recently reported that "an efficient land revenue system needs maintenance of up-to-date statistics of area under different crops and their yields, soilwise and tractwise." There is extreme paucity of farm management surveys, which could furnish reliable information on costs of farming under traditional agriculture and the new techniques of cultivation and about directions in which there was substantial scope for improvement in farm productivity. We would, therefore, suggest that extensive farm management surveys be done to get the districtwise information in the State. This will require a separate cadre of the district level workers as suggested by the Task Force on Land Reforms of the Planning Commission in 1973.

The Fifth Five Year Plan of Uttar Pradesh is relying much more on additional resource mobilisation by the State Government. The growth rate in the State economy during the Fifth Plan has been envisaged at 6.5 per cent as against a target of 5.5 per cent for the country so that the existing economic disparity between the State and the country as a whole is reduced. The State Government

has relied much more on indirect taxes for raising resources since 1960-61. During this period land taxes have been completely inelastic to changes in agricultural incomes. On the other hand owing to abolition of land revenue there was a diminution of annual revenue demand during the Fourth Plan period. Through a reversal of this policy and relying for more finances from direct taxes in Uttar Pradesh the State Government could fulfil the twin aims of inter-sectoral equity and getting the much needed resources for economic development of Uttar Pradesh.

There seems to be a reversal in the recent aims of State Tax Policy ^{as} is evident by recent relevy of the exemption of land revenue and substantially higher surcharge rates of land development tax.²² During 1974-75 the envisaged additional resource mobilization from land taxes in the budgetary proposals has been to the effect of about Rs. 24 crores. Besides changes in the land taxes, the State has also increased sales tax rates, purchase of sugarcane and electricity rates. Yet we find that resource scarcity in the financing of the Fifth Plan remains. The Chief Minister has asserted several times in recent months that he requires about Rs. 200 crores more for essential schemes of irrigation power and minimum needs

7.2

²² See Appendixes ^{67. Land} for details : of the Development Tax and Land Revenue Act.

programmes in rural and urban areas viz., elementary education, rural roads, house sites for landless labourers, public health facilities, and nutrition and slum improvements. In view of the lower fixation of the annual plan (1975-76) by the Planning Commission, in comparison to what the State Planning Department wanted²³ the requirements of resources for accelerated development of Uttar Pradesh are self-evident.

Uttar Pradesh can come up with the other economically advanced States of India if its economic policies, particularly the State tax policies are refashioned as suggested by us. We feel that a substantial base for progressive taxes exists in the agricultural sector of the economy which has been built up by huge public investments from plan to plan. In the future resource mobilisation from the agricultural sector two guide lines are uppermost in our mind: to improve the production base by enlarging the area of new technology and optimum land utilisation particularly to the small and medium farmers. Secondly, mobilisation of savings whether by compulsory *method* (by taxation) or voluntarily through public and co-operative institutions should be much more effective than in recent

²³vide chapter V for details.

years. In this way the rate of investments in the economy can be stepped up, leading to higher per capita incomes, diversification of the economy, food self-sufficiency and removal of poverty.

LIST OF ANNEXURES

	<u>Page</u>
1.1. Utilisation of Land, in U.P.	310
1.2. Percentage of Net Area Sown to the Total Land Which can be Utilized for Cultivation, in U.P.	312
1.3. Indices of Production of some Crops 1950-51 to 1971-72, in U.P.	313
1.4. Per Capita Income of States in India at Constant Prices.	314
1.5. Per Capita Income of States in India at Current Prices.	316
2.1. Growth of Population and Food Demand in Selected Countries.	317
2.2. Compound Rates of Agricultural Growth in India.	319
3.1. State Income and Incomes of Agriculture and Animal Husbandry Sector 1960-61 to 1972-73, in U.P.	320
3.2. Statement Showing Expenditure during I, II, III Plans, Three Annual Plans and the Fourth Plan, in U.P.	321
3.3. Gross and Net Area-Irrigated 1950-51 to 1970-71, in U.P.	323
3.4. Consumption of Chemical Fertilizers 1956-57 to 1971-72 in the Form of N_2 , P_{2O_5} and K_{2O} , in U.P.	324
3.5. Average Annual Production of Different Crops during Plan Periods, in U.P.	325
3.6. Production of important Crops in Uttar Pradesh.	326

3.7'A'.	Relative Levels of Agricultural Productivity of Land : Average for 1967-68 to 1969-70.	327
3.7'B'.	Relative Levels of Agricultural Productivity Per Agricultural Worker : Average for 1967-68 to 1969-70, in U.P.	328
3.8.	Per Hectare Yield of Some Crops by States in 1970-71.	329
3.9.	Production of Important Crops in Uttar Pradesh.	330
3.10.	Number of Operational Holdings and Area in Different Holding Sizes in Uttar Pradesh, 1970-71.	331
3.11.	Area Development Project, Phulpur, District Allahabad.	332
3.12.	Rural Electrification, 1950-51 to 1973-74.	335
3.13.	Power Consumption in Agriculture 1965-66 to 1972-73.	336
3.14.	Area Under High Yielding Varieties - 1966-67 & 1973-74 (Lakh Hectares), in U.P.	337
4.1.	Classification of Holdings Before Zamindari Abolition, 1951-52, in U.P.	338
4.2.	Percentage Households and Percentage Area Held in Uttar Pradesh.	339
4.3.	The Uttar Pradesh Imposition of Ceiling on Land Holdings (Amendment) Act, 1972.	340
4.4.	Operational Holdings in Uttar Pradesh : Area, Number and Average Size by Regions.	342
4.5.	Percentage Distribution of Number of Households/Holdings and Area Held by them in Uttar Pradesh in 1960-61 and 1970-71 and in India in 1960-61.	343

4.6.	Percentage Distribution of Holdings and Their Area in Various Divisions.	344
5.1.	Calendar of Land Revenue Settlements in Uttar Pradesh (Corrected upto June 30, 1950).	345
5.2.	Statement Showing the Incidence of Land Revenue on Sirdars, Phumidhars and Asamis in Uttar Pradesh (Plain).	349
5.3.	Revenue from Agricultural Income Tax, Large Land Holding Tax and Vrihat-Jot-Kar, in U.P.	350
6.1.	Direct Agricultural Taxation as Percentage of Agricultural Income 1960-61 to 1972-73, in U.P.	352
6.2.	District-wise per-acre Incidence of Land Revenue 1969-70, in U.P.	353
6.3.	Tax Revenue as Percentage of State Income 1960-61 to 1972-73, in U.P.	356
6.4.	Capital Formation in Rural Areas of Uttar Pradesh (1969-70).	357
7.1.	Incidence of Land Revenue According to Holding Sizes in Uttar Pradesh, 1970-71.	358
7.2.	The Uttar Pradesh Land Development Tax and Land Revenue (Amendment) Ordinance 1974.	359
7.3.	Direct Taxes on Agriculture As Percentage of State Agricultural Income and State Tax Revenues (1967-68 to 1969-70), in U.P.	361
8.1'A'	Tehsil-wise Land Utilization in Allahabad District, 1970-71.	363
8.1'B'	Percentage of Land Utilization (Tehsil-wise), in Allahabad District.	364

8.2.	Number of Operational Holdings and Area in Different Holding Sizes in Uttar Pradesh (1970-71).	365
8.3.	Crop-wise Total Production and Average Yield Per Hectare in Allahabad District.	366
8.4.	Occupational Pattern in Allahabad District.	367
9.1.	Agricultural Development Index, For Allahabad District.	368
9.2.	Size of Holdings in Allahabad District.	370
9.3.	Per Capita Monthly Consumer Expenditure in Rural and Urban Areas in Uttar Pradesh.	372

APPENDIX 1.1

Utilisation of Land in U.P.

('000 Hectares)

Year	Hill/Plain	Reporting area	Forest	Barren and unculturable land put to non-agricultural uses	Land which can be utilised for cultivation	Current fallow
1	2	3	4	5	6	7
1950-51	Plain	25,145	1,298	3,352	3,840	1,046
	Hill	4,114	1,896	1,389	175	32
	Total	29,259	3,194	4,741	4,015	1,078
1955-56	Plain	25,989	2,376	3,056	4,156	163
	Hill	4,114	1,896	1,389	174	28
	Total	30,103	4,272	4,445	4,330	191
1960-61	Plain	25,381	1,960	3,052	3,662	146
	Hill	4,114	1,834	1,451	124	28
	Total	29,495	3,794	4,503	3,836	174
1965-66	Plain	25,316	1,941	3,052	2,740	865
	Hill	4,114	1,834	1,451	174	28
	Total	29,430	3,775	4,503	2,914	893
1968-69	Plain	25,471	2,445	3,032	2,712	793
	Hill	4,114	1,834	1,451	174	28
	Total	29,585	3,979	4,483	2,886	821
1969-70	Plain	25,535	2,234	3,038	2,237	770
	Hill	4,354	2,735	1,23	645	22
	Total	29,889	4,969	3,161	2,882	792
1970-71	Plain	25,535	2,234	3,030	2,613	816
	Hill	4,345	2,734	1,23	645	22
	Total	29,880	4,968	3,453	3,258	838

*This includes culturable waste, permanent pasture and other prairie land, area under miscellaneous trees, crops and groves and other fallow land and excludes current fallow and net area sown.

Contd.....

ANNEXURE 1.1. (Contd....)

Year	Hill/Plain	Net area sown	Area sown more than once	Total cropped area	Intensity of cropping	Net area irrigated
1	2	8	9	10	11	12
1950-51	Plain	15,609	3,650	19,259	123.3	1,809
	Hill	622	79	701	112.7	31
	Total	16,231	3,729	19,960	122.9	1,840
1955-56	Plain	16,238	4,071	20,309	125.0	1,921
	Hill	627	79	706	112.6	30
	Total	16,865	4,150	21,015	123.5	1,951
1960-61	Plain	16,561	4,163	21,074	126.9	5,044
	Hill	627	79	700	112.6	30
	Total	17,188	4,242	21,730	126.5	5,074
1965-66	Plain	16,718	4,651	21,369	127.8	5,844
	Hill	627	79	706	112.6	30
	Total	17,345	4,730	22,075	127.3	5,874
1968-69	Plain	16,789	4,865	21,654	125.0	6,532
	Hill	627	79	706	112.6	30
	Total	17,416	4,944	22,360	128.6	6,562
1969-70	Plain	16,856	5,316	22,172	131.5	6,788
	Hill	529	240	769	145.3	48
	Total	17,385	5,556	22,941	131.9	6,836
1970-71	Plain	16,842	5,541	22,353	132.8	7,160
	Hill	501	353	854	170.6	50
	Total	17,343	5,894	23,207	133.8	7,210

Percentage of Net Area Sown To The Total Land Which Can Be Utilised For Cultivation

in U.S.

Year	Plain/Hill	Total land which can be utilised for cultivation (including net area sown and current fallow* (000 hec.))	Percentage of net area sown to total land which can be utilised*	Percentage of current fallow to net area sown	Land which can be still utilised for cultivation as percentage of col. 4
1950-51	Plain	20,495	76.2	6.7	23.5
	Hill	829	75.0	5.1	25.0
	Total	21,324	76.1	6.4	23.5
1955-56	Plain	20,557	79.0	10.0	21.0
	Hill	829	75.6	4.5	24.4
	Total	21,386	78.9	11.2	21.1
1960-61	Plain	20,369	81.3	8.5	13.7
	Hill	829	75.6	4.5	24.4
	Total	21,198	81.1	10.1	18.9
1965-66	Plain	20,823	82.3	5.1	17.7
	Hill	829	75.6	4.5	24.4
	Total	21,652	82.0	5.1	18.0
1968-69	Plain	20,294	82.7	4.7	17.3
	Hill	829	75.6	4.5	24.4
	Total	21,123	82.4	4.7	17.6
1969-70	Plain	20,263	83.2	4.6	16.8
	Hill	1,196	44.2	4.2	55.8
	Total	21,459	81.0	4.5	15.0
1970-71	Plain	20,271	83.1	4.3	16.9
	Hill	1,168	42.9	4.4	57.1
	Total	21,439	80.9	4.8	18.1

*This includes culturable waste, permanent pastures and other grazing land, land under miscellaneous tree crops and groves, other fallow land, net area sown and current fallow.

ANNEXURE 1-3

Indices of Production of Some Crops, 1950-51 to 1971-72

In C.P

Sl. No.	Year	Production Indices of (Base 1950-51 = 100)						Total Food Grains
		Rice	Wheat	Maize	Sugar-cane	Potato (Pabi)	Oil Seeds (Pure & Mixed)	
1	2	3	4	5	6	7	8	9
1.	1950-51	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2.	1951-52	77.5	98.6	106.4	109.2	106.0	118.8	92.9
3.	1952-53	94.1	105.4	125.6	91.3	101.3	115.5	102.8
4.	1953-54	114.6	116.0	103.4	71.4	101.9	114.7	106.6
5.	1954-55	109.6	122.6	125.0	97.4	101.7	133.0	112.8
6.	1955-56	129.5	113.6	96.1	101.3	107.2	98.4	102.4
7.	1956-57	116.2	116.3	153.9	120.5	96.3	126.2	107.1
8.	1957-58	117.0	101.0	122.5	105.8	113.5	103.6	96.5
9.	1958-59	151.7	113.4	95.4	106.0	124.4	129.7	110.6
10.	1959-60	123.3	121.0	158.1	111.0	135.2	140.7	114.1
11.	1960-61	157.6	145.0	96.0	184.8	124.9	167.5	123.0
12.	1961-62	167.3	152.7	106.6	173.8	103.4	169.5	119.4
13.	1962-63	156.8	118.0	153.2	146.4	125.4	158.7	114.6
14.	1963-64	164.0	99.8	119.5	161.2	85.4	143.5	100.2
15.	1964-65	166.3	151.3	136.4	190.7	167.2	223.0	129.5
16.	1965-66	117.2	138.0	172.2	192.0	206.8	192.5	112.9
17.	1966-67	96.8	155.5	165.3	133.5	136.5	166.2	100.0
18.	1967-68	159.1	214.6	174.2	128.5	222.0	210.4	141.6
19.	1968-69	137.4	223.7	196.1	171.3	253.6	188.1	136.2
20.	1969-70	166.7	236.0	180.4	205.7	194.1	211.1	147.9
21.	1970-71	180.4	282.6	276.3	185.3	230.8	237.6	165.3
22.	1971-72	188.9	277.5	129.4	167.3	261.6	165.4	150.1

Source : Uttar Pradesh Ke Pramukh Krishi Ankde, 1950-51 to 1971-72.

ANNEXURE 1.4

Per Capita Income of States in Indian at Constant Prices

Sl. No.	States	Base Year	(In Rs.)									
			1	2	3	4	5	6	7	8	9	10
1.	Uttar Pradesh	1960-61	216	215	215	216	216	216	216	216	216	216
2.	Andhra Pradesh	1960-61	275	276	276	275	276	276	276	276	276	276
3.	Assam	1948-49	254	276	276	254	276	276	276	276	276	276
4.	Bihar	1960-61	211	217	217	211	217	217	217	217	217	217
5.	Gujarat	1960-61	362	371	371	362	371	371	371	371	371	371
6.	Haryana	1960-61	327	319	319	327	319	319	319	319	319	319
7.	Himachal Pradesh	1960-61	-	-	-	-	-	-	-	-	-	-
8.	Jammu & Kashmir	1955-56	253	255	255	253	255	255	255	255	255	255
9.	Karnatak	1956-57	230	245	245	230	245	245	245	245	245	245
10.	Kerala	1960-61	265	268	268	265	268	268	268	268	268	268
11.	Madhya Pradesh	1952-53	260	224	224	260	224	224	224	224	224	224
12.	Maharashtra	1960-61	409	386	386	409	386	386	386	386	386	386

Contd....

ANNEXURE 1.4 (Contd..)

1	2	3	4	5	6	7	8	9	10
13.	Madipur	1960-61	195	189	-	-	-	-	-
14.	Orissa	1960-61	211	230	250	253	-	-	-
15.	Punjab	1960-61	374	391	450*	470*	470*	454*	-
16.	Rajasthan	1954-55	237	241	247	263	306	282	-
17.	Tamil Nadu	1960-61	330	319	332	337	291*	365*	-
18.	West Bengal	1960-61	321	327	336	342*	340*	344*	-
<hr/>									
	India	1960-61	306	310	330	339*	346*	344*	339*

*Provisional.

Source :-

(1) Estimates of State Forensic products of various states and their statistical estimates.

(11) Estimates of National product saving & Capital formation 1960-61 - 1971-72.

(111) Letters from various S.F.D. received in Directorate of Economics and Statistics, Uttar Pradesh.

ANNEXURE 1.5

Per Capita Income of States in India at Current Prices

(In Rs.)

Sl. No.	States	1960-61	1965-66	1968-69	1969-70	1970-71	1971-72	1972-73
1	2	3	4	5	6	7	8	9
1.	Uttar Pradesh	216	364	476	521*	530*	551*	652*
2.	Andhra Pradesh	275	307	178*	513*	545*		
3.	Assam	311	416	556	556*			
4.	Bihar	211	326	102*				
5.	Gujarat	362	491	560*	671*	778*		
6.	Haryana	327	450	634*	809*	836*	90*	
7.	Himachal Pradesh	-	-	550*	563*		-	
8.	Jammu & Kashmir	-	-	-	-	-	-	
9.	Karnataka	305	369	490*	503*	540*	551*	770*
10.	Kerala	265	117	507*	550*	590*	570*	
11.	Madhya Pradesh	283	347	394*	534*	553*	583*	632*
12.	Maharashtra	409	531	700	752*	772*	810*	825*
13.	Manipur	197	362					
14.	Orissa	314*	326*	150*	167*			
15.	Punjab	371*	555	831*	945*	965*	105*	
16.	Rajasthan	318	391	426	500	500*	575*	
17.	Tamil Nadu	330	405	491	531	586*	643*	
18.	West Bengal	321	415	491*	516*	539*	550*	
	India	306	426	555*	589*	628*	645*	688*

*Provisional.

ANNEXURE 21

Growth of Population And Food Demand In Selected Countries,
1954-1963*

Country**	(Annual rate)	
	Population growth	Growth in food demand
Israel	3.9	9.2
Algeria	2.2	6.1
China (Taiwan)	3.5	5.8
Venezuela	3.6	5.6
Mexico	3.1	4.8
Panama	3.0	4.8
Iran	2.4	4.7
Iraq	1.5	4.7
United Arab Republic	2.4	4.6
Honduras	3.1	4.5
Philippines	3.1	4.5
Brazil	3.1	4.3
Federation of Malaya	3.3	4.2
Republic of Korea	2.9	4.2
Peru	1.9	4.1
Gautemala	3.0	3.9
Pakistan	2.1	3.9
Colombia	2.2	3.6
Ceylon	2.5	3.5
India	2.1	3.4

Contd.....

Contd.....

Country**	Population growth	Growth in food demand
Chile	2.4	3.0
Tunisia	1.8	2.7
Indonesia	2.2	2.0
Uruguay	1.5	1.8
Median	2.5	4.2

Source : Bureau of General Economic Research and Policies of the United Nations Secretariat, based on data from National Accounts Statistics and Monthly Bulletin of Statistics, and Food and Agriculture Organization of the United Nations, Agricultural Commodities - Projections for 1970 (Rome, 1962).

*Food includes grains, starchy roots, sugar, pulses, edible oil crops, nuts, fruits, vegetables, wine, cocoa and livestock products. Growth in food demand calculated from rates of growth of gross national product and FAO estimates of income elasticity of demand for food. Rates of growth calculated from first and last years of period shown. For some countries, the period is slightly shorter than that indicated.

**Countries are arrayed in descending order of rate of growth in demand for food.

ANNEXURE 22Compound Rates Of Agricultural Growth In India1952-53 to 1964-65

Region	All Crop Output	Foodgrain Output	Population
Punjab	4.56	4.17	2.16
Gujarat	4.55	2.06	2.61
Madras	4.17	3.66	1.25
Mysore	3.54	3.31	2.08
Bihar	2.97	3.05	2.12
Maharashtra	2.93	2.29	2.32
Rajasthan	2.74	2.42	2.68
Andhra Pradesh	2.71	3.21	1.63
Madhya Pradesh	2.49	2.32	2.51
Orissa	2.48	2.39	2.16
Kerala	2.27	3.68	2.33
West Bengal	1.94	1.14	2.92
Uttar Pradesh	1.66	0.85	1.84
Assam	1.17	0.76	3.15
All India	3.01	2.50	2.19

Source : Government of India, Ministry of Food and Agriculture, Growth Rates in Agriculture, 1949-50 to 1964-65, The Rates of Growth of Crop output is a little higher, at 3.19 per cent per annum for the period 1949-50 to 1964-65.

APPENDIX 3.1

State Income & Incomes of Agriculture and Animal Husbandry Sector
(at current and constant prices) 1960-61 to 1972-73 in L P

Sl. No.	Year	Total State Income (Rs. Crores) at current prices)	Income of Agriculture and Animal Husbandry Sectors (Rs. crores)		Col. 4 as percentage of Col. 3
			at current prices.	at constant prices.	
1	2	3	4	5	6
1.	1960-61	1790.31	1071.82	1071.82	59.6
2.	1961-62	1913.67	1119.00	1071.77	56.5
3.	1962-63	1989.91	1121.39	1028.75	56.4
4.	1963-64	2234.92	1279.28	988.70	57.2
5.	1964-65	2944.81	1911.08	1176.58	64.9
6.	1965-66	2961.95	1910.72	1081.06	61.1
7.	1966-67	3638.31	2364.08	1023.59	65.0
8.	1967-68	4200.53	2779.25	1185.69	66.2
9.	1968-69	4021.82	2439.90	1209.94	60.7
10.	1969-70	4481.41*	2747.26*	1282.60*	61.3
11.	1970-71	4554.03*	2681.45*	1340.79*	58.9
12.	1971-72	5271.35*	3198.71*	1251.47*	60.7
13.	1972-73	5918.28*	3562.72	1308.99*	60.2

*Provisional.

Source : Economics & Statistics Division, Uttar Pradesh.

ANNEXURE 32

Statement Showing Expenditure During I, II, III Plans, Three Annual Plans And The Fourth Plan in U.P.

(Expend in lakhs)					
Name of Sector	First Plan	Second Plan	Third Plan	Three Annual Plan	Fourth Plan (likely)
1	2	3	4	5	6
Agricultural Production	1,984	1,757	3,000	2,672	4,879
Minor Irrigation	580	1,567	5,740	7,415	10,629
Soil Conservation	99	123	153	687	2,052
Agriculture Research and Education	..	..	..	..	481
Total 1 - Agricultural Production	2,663	3,447	9,202	10,774	18,041
Animal Husbandry	112	219	469	271	556
Dairying and Milk Supply	19	21	385	162	553
Forests	139	224	612	300	1,220
Fisheries	3	27	60	34	80
Warehousing	..	..	1	..	185
Total 2 - Allied Programmes	273	491	1,530	776	2,605
Total 1 and 2 - Agricultural and Allied Programmes	2,936	3,970	10,732	11,550	20,646
Co-operation	131	414	806	214	1,712
Community Development	851	2,764	1,765	1,136	900
Panchayat	..	..	111	48	175
Total 3 - Co-operation and C.D.	982	3,178	5,682	1,428	2,787

Contd.....

APPENDIX III

(Contd.)

Name of Sector	First Plan	Second Plan	Third Plan	Three Annual Plan	Fourth Plan (likely)
1	2	3	4	5	6
Irrigation	3,001	2,543	5,190	4,003	13,593
Flood Control	210	..	672	307	1,079
Power	2,331	5,675	15,701	12,536	40,820
Total 4 - Irrigation and Power	5,622	8,218	21,860	22,736	55,500
GRAND TOTAL :	15,337	23,336	56,063	45,163	107,471

ANNEXURE 3.3Gross And Net Area Irrigated 1950-51 to 1970-71
in U.P.

Year	Gross Area Irrigated (Hect.)	Percentage Increase in Gross Area Irrigated over 1950-51	Net Area Irrigated (Hect.)	Percentage increase in Net Area Irrigated over 1950-51
1950-51	51,78,908	-	40,09,350	-
1955-56	53,26,737	2.8	40,21,159	2.3
1960-61	55,28,457	6.7	50,11,076	4.9
1965-66	65,76,660	27.00	58,12,505	21.5
1968-69	75,19,364	45.2	65,31,643	35.8
1969-70	78,88,367	52.3	67,88,191	41.1
1970-71	83,03,941	60.3	71,50,895	48.9

(Source : Uttar Pradesh Ke PramuKh Krishi
AnkDe (1950-51 to 1971-72).

ANNEX 34

Consumption of Chemical Fertilisers, 1956-57 to 1971-72 in
The Form of N, P, 205 and K, 20
in C P

Year	Achievement in Nitrogenous N 2	Thousand K. Phosphatic P. 205	Tonnes Potassic K 20
1956-57	20	1	-
1957-58	20	1	-
1958-59	27	2	-
1959-60	25	2	-
1960-61	28	2	-
1961-62	32	4	-
1962-63	43	5	-
1963-64	69	8	-
1964-65	89	9	-
1965-66	84	9	-
1966-67	74	9	2
1967-68	142	39	18
1968-69	220	77	41
1969-70	306	98	55
1970-71	291	75	45
1971-72	338	73	53

Source : Fertilizer and Allied Statistics,
Uttar Pradesh.

ANNEXURE 3.5Average Annual Production of Different Crops During Plan Periods
in U.P.

Periods	Food Grains		Sugar Cane		Oil Seeds	
	Production of (M. Tonnes)	Increase over 1950-51 %	Production of (M. Tonnes)	Increase over 1950-51 %	Production of (M. Tonnes)	Increase over 1950-51 percentage
1	2	3	4	5	6	7
1950-51	11774582	--	29498059	-	779175	-
1st Plan	12187963	3.5	27759965	(-)5.9	904791	16.1
2nd Plan	12983505	10.3	37050481	25.6	1041000	33.6
3rd Plan	13577913	15.3	50979408	72.8	1383312	77.5
3 Annual Plans	14828127	25.9	42606803	44.4	1467282	88.2
4th Plan (3 years)	181846640	54.4	54901902	86.1	1595558	104.7

Source : Uttar Pradesh Ka Pramukh Krish Ankde,
1950-51 -- 1971-72.

ANNEXURE 3-6

Production of Important Crops in Uttar Pradesh

(In lakh tonnes)

Crops	Production in			
	1950-51	1960-61	1970-71	1970-72
Wheat	26.21	39.45	76.90	75.27
Barley	17.13	16.87	14.30	13.38
Roady	19.99	31.51	36.05	36.81
Juar	8.46	4.95	4.86	2.39
Pajra	6.73	4.29	8.82	5.28
Maize	6.51	6.25	17.96	8.46
Pulses	30.23	38.24	30.69	28.38

Source : Draft Fifth Five Year Plan, Vol. I, .
Planning Department, Uttar Pradesh, p. 58.

ANNEXURE 3 'A'

Relative Levels Of Agricultural Productivity of Land :Average for 1967-68 to 1969-70In Uttar Pradesh

Rank	State	Net income per hectare (Rs.)
1.	Kerala	2,716
2.	West Bengal	2,203
3.	Assam (including Meghalaya)	2,102
4.	Bihar	1,876
5.	Punjab	1,859
6.	Jammu and Kashmir	1,774
7.	Nagaland	1,702
8.	Uttar Pradesh	1,447
9.	Tamil Nadu	1,367
10.	Haryana	1,367
11.	Bihar	1,247
12.	Orissa	1,155
13.	Andhra Pradesh	1,058
	All States	1,037
14.	Mysore	834
15.	Gujarat	774
16.	Maharashtra	583
17.	Madhya Pradesh	539
18.	Pakistan	461

Source : Draft Fifth Five Year Plan, Vol. I,
Planning Department, Uttar Pradesh, P. 122.

ANNEXURE 37B

Relative Levels of Agricultural Productivity per Agricultural Worker : Average for 1967-68 to 1969-70
In Uttar Pradesh

Rank	State	Per agricultural worker average net domestic product of agricultural sector at current prices (Rs.)
1.	Punjab	3,195
2.	Haryana	2,922
3.	West Bengal	1,819
4.	Kerala	2,070
5.	Assam	1,707
6.	Gujarat	1,457
7.	Orissa	1,400
8.	Jammu and Kashmir	1,393
9.	Mysore	1,371
10.	Uttar Pradesh	1,236
	All States	1,213
11.	Himachal Pradesh	1,134
12.	Rajasthan	1,129
13.	Andhra Pradesh	993
14.	Tamil Nadu	955
15.	Maharashtra	949
16.	Madhya Pradesh	856
17.	Bihar	755
18.	Nagaland	409

Source : Draft Fifth Five Year Plan, Vol. I,
 Planning Department, Uttar Pradesh, p. 122.

ANNEXURE 3.2Per Hectare Yield of Some Crops by States in 1970-71

(Yield per hectare in kgs.)

States	Rice	Wheat	Wheat	Potato	Sugar- cane	Pulses
1	2	3	4	5	6	7
Andhra Pradesh	1,369	1,335	*	*	77,609	176
Gujarat	1,023	1,617	1,628	23,975	51,783	390
Haryana	1,685	1,116	2,093	15,585	45,032	712
Maharashtra	1,227	998	511	4,252	68,002	312
Madhya Pradesh	841	1,074	760	11,157	26,349	466
Mysore	1,684	3,226	310	4,373	87,723	357
Punjab	1,725	1,516	2,251	12,345	41,172	768
Rajasthan	1,126	1,226	1,322	*	32,741	489
Tamil Nadu	1,974	1,108	*	8,267	77,359	223
West Bengal	1,283	943	2,188	8,176	47,000	674
Uttar Pradesh	819	1,182	1,286	9,233	40,077	820
India	1,134	1,270	1,299	9,039	48,464	516

*Crop being unimportant in the State.

Source : Draft Fifth Five Year Plan, Vol. I,
Planning Department, Uttar Pradesh, p. 61.

ANNEXURE 3.0Production Of Important Crops In Uttar Pradesh

(In lakh tonnes)

Sl. No.	Crops	Production in			
		1950-51	1960-61	1970-71	1971-72
1	2	3	4	5	6
1.	Wheat	26.21	35.45	76.90	75.27
2.	Barley	12.13	16.07	14.30	13.30
3.	Roady	19.99	31.51	26.05	30.81
4.	Juar	8.46	4.95	4.86	2.39
5.	Rajra	6.73	4.29	6.22	5.28
6.	Maize	6.51	6.25	17.96	8.46
7.	Pulses	30.23	35.21	30.69	28.38
8.	Oilseeds	7.79	13.05	15.52	17.47
9.	Potato	6.41	8.00	14.86	16.83
10.	Sugarcane	294.98	545.16	546.72	486.70

Source : Draft 15th Five Year Plan Uttar Pradesh,
Vol. I.

ANNEXURE 3.10

Number of Operational Holdings And Area in Different
Holding Sizes - 1970-71 IN H.P.

Size (Hect.)	Total holdings	
	Number	Area (Hect.)
Less than		
0.5	7116591	1521670
0.5-1.0	2986638	2143859
1.0-2.0	2591431	3612575
2.0-3.0	1089501	2632107
3.0-4.0	533765	1829241
4.0-5.0	300480	1333858
5.0-10.0	428585	2856156
10.0-20.0	94727	1230970
20.0-30.0	11752	278311
30.0-40.0	3198	108131
40.0-50.0	1098	46710
50.0 and above	1405	138150

Source : Tables of Agriculture Census,
1970-71.

ANNEXURE 3-IIAREA DEVELOPMENT PROJECT, BULPAT, (DISTRICT ALLAHABAD)

After several years of community development and agricultural extension programme in rural areas, agriculture was still largely a non-surplus economy for the small and the marginal farmers. The essential approach in the Pilot Project would be to use normal planning inputs and supplement these intensively from institutional financial resources, public participation and other corporate agencies. The integrated plan will be linked with the 'Growth Centre' concept which envisages certain carefully selected focal points in different parts of the block, each such focal point or growth centre serving a number of revenue villages or panch sabhas as its hinterland. While the growth centre will provide inputs, processing facilities, departmental units, banking and marketing services etc., the village communities will increase their production by means of these inputs and services. Thus a regular flow of goods and services both ways on a larger scale will be generated and maintained. One effect of this increased economic activity will be creation of employment opportunities in the primary, secondary and tertiary sectors of the local economy.

Nearly 500 small-scale and cottage industrial units manufacturing sophisticated as well as traditional items have been set up and 1,900 tube-wells installed and

ATTACHMENT 3-II (Contd.)

about 15,000 hectares of land brought under irrigation in the Phulpur Project area, covering three development blocks of Phulpur, Pratappur and Tahadurnur during the past one decade. The scope of organising industry on the basis of local raw-material, i.e. agricultural produce is limited as there is no sizeable marketable surplus in the area at present. In view of this situation, emphasis will have to be laid down on the development of demand based industries including such industries which support agricultural development programme and promote higher agricultural productivity e.g. agricultural implements and repairing workshops, carpet weaving, hosiery, cycle parts, paints and varnishes, soap and cosmetics. 25 plots have already been allotted to entrepreneurs who propose to set up industrial units in the Industrial Estate. A pottery project on a decentralised basis and a power-loom unit on co-operative basis are its chief features till now. The idea of organising a corporation had to be dropped because of lack of response from local artisans and industrialists.

The intensive area development programme launched in the project area has brought about a significant change in the socio-economic conditions of the people. A nine-hectare usar reclamation farm taken up in Phulpur had been a great success in as much as the farm was retained in

ANNEXURE 3 (Contd.)

about two years and paddy and wheat had been grown on it. A number of villages as focal points have been identified which have potential for rapid development. Such villages are expected to meet the requirement of adjoining villages through integrated development of programmes of agriculture, animal husbandry, public works etc. The proposed fertilizer factory at Phulaur will not only meet the scarcity of chemical fertilizers but will help the village economy to save their incomes for capital formation within the project area and shall encourage the growth of employment.

ANNEXURE 312

Rural Electrification, 1950-51 to 1973-74

in U P

Sl. No.	Item	Unit	At the Commencement of Plan as on 3/51	Achievement at the end of				
				First Plan 3/56	Second Plan 3/61	Third Plan 3/66	Three Annual Plans 3/69	Fourth Plan 3/74
1	2	3	4	5	6	7	8	9
1.	Installed Generating Capacity.	M.W.	179	288	370	910	1310	1680
2.	Rural Electrification :-							
	(i) Electrification of Villages.	Nos.	110	420	1002	5855	12026	29415
	(ii) Energisation of Private Tube-wells/pumping sets.	Nos.	635	1429	3766	9203	65513	113446

Source : Uttar Pradesh State Electricity Board.

ANNEXURE 3-13

Power Consumption In Agriculture - 1965-66 to 1972-73
in U.P.

Year	Power Consumption Million Units		Col.(4) as percent- age of Col.(3)	Percentage increase in consumption in agricul- ture over - 1965-66
	Total	In Agriculture		
1965-66	2419.011	309.532	12.8	-
1966-67	2853.571	375.150	13.1	21.2
1967-68	2924.504	340.307	11.9	12.5
1968-69	3562.570	645.749	18.0	107.7
1969-70	3711.610	613.120	16.5	98.2
1970-71	4290.732	713.475	16.6	130.5
1971-72	4185.960	693.574	15.5	124.1
1972-73	4804.099	894.182	18.6	189.0

Source : Uttar Pradesh State Electricity Board.

Note : Agriculture State Tube-wells, Private Tube-wells and Pumping sets and other Agricultural land.

ANNEX 314

Area Under High Yielding Varieties - 1966-67 & 1973-74
in U P (lakh Hectares).

Varieties	Unit	1966-67	1973-74 (likely)
<u>Exotic</u>			
(i) Mexican wheat	lakh Hect.	2.00	27.00
(ii) Paddy T.N.I.	-do-	0.39	10.15
(iii) Hybrid Maize	-do-	0.71	0.10
(iv) Hybrid Jwar	-do-	0.01	0.03
(v) Hybrid Bajra	-do-	0.01	0.10
Total under Exotic varieties.		<u>2.62</u>	<u>37.28</u>
<u>State High Yielding Varieties</u>			
(i) U.P. Paddy	lakh Hect.	0.16	2.10
(ii) U.P. Maize	-do-	0.24	6.00
(iii) U.P. Wheat	-do-	1.63	14.17
Total State Varieties.		<u>2.03</u>	<u>22.27</u>
Total under High Yielding Varieties.		<u>4.65</u>	<u>59.55</u>
Percentage of net cropped area		2.8	38.3

Source : Draft Fifth Five Year Plan, Uttar Pradesh, Vol. I.

ANNEXURE 4.1Classification Of Holdings Before Zamindari Abolition

(1951-52)

in U.P.

Type of Tenure	(All Villages (Area in Acres) ¹	Percentage
1. Sir and Thakot	74,36,701	16.55
2. Thekedars, mortgagees in possession and ex-proprietors	9,21,232	2.07
3. Out-proprietors and under-proprietors	6,71,545	1.49
4. Permanent tenure holders	2,191	-
5. Fixed-rate tenants	8,21,740	1.83
6. Tenants on special terms in Awadh	7,409	0.02
7. Occupancy tenants and tenants of not less than 12 years in 1333 Fasli	1,25,76,638	27.99
8. Hereditary tenants and hereditary tenants with special rights	1,89,39,407	42.15
9. Non-occupancy tenants	4,40,069	1.00
10. Occupiers of land without consent	19,73,923	4.39
11. Grove-holders	7,36,779	1.64
12. Grantees	3,89,108	0.87
Total	1,49,34,750	100.00

Source : ¹These figures are for the year 1951-52 and have been worked out from the Annual Uttar Pradesh Land Revenue Administration Report.

ANNEXURE H-2Percentage Households and Percentage Area Held in
U.P.

Size of holding (in acres)	Number of persons (lacs)	Percentage of householding	Percentage area held by the group
Not exceeding .5	26.43	21.5	2.2
Exceeding .5 but not 1	19.45	16.3	3.8
" 1 but not 2	22.05	18.0	8.1
" 2 but not 3	14.29	11.6	8.7
" 3 but not 4	9.92	8.1	8.4
" 4 but not 5	7.03	5.7	7.6
" 5 but not 6	5.14	4.2	6.8
" 6 but not 7	3.78	3.0	5.9
" 7 but not 8	2.83	2.3	5.1
" 8 but not 9	2.14	1.8	4.4
" 9 but not 10	1.70	1.4	3.9
" 10 but not 12	2.06	1.7	5.5
" 12 but not 14	1.36	1.1	4.3
" 14 but not 16	0.95	0.8	3.4
" 16 but not 18	0.68	0.6	2.4
" 18 but not 20	0.51	0.4	2.4
" 20 but not 25	0.70	0.6	3.8
Over 25	1.14	0.9	12.9

Source : Zamindari Abolition Committee Report,
Vol. II.

ANNEXURE 4.3The Uttar Pradesh Imposition Of Ceiling On Land Holdings(Amendment) Act, 1972

(pp. 29-30)

The relevant clauses of the Act are :

(1) In the case of a tenure-holder having a family of not more than five members, 7.30 hectares of irrigated land (including land held by other members of his family), plus two additional hectares of irrigated land or such additional land which together with the land held by him aggregates to two hectares, for each of his adult sons, who are either not themselves tenure-holders or who hold less than two hectares of irrigated land, subject to a maximum of six hectares of such additional land;

(2) in the case of a tenure-holder having a family of more than five members, 7.30 hectares of irrigated land (including land held by other members of his family), besides, each of the members exceeding five and for each of his adult sons who are not themselves tenure-holders or who hold less than two hectares of irrigated land, two additional hectares of irrigated land or such additional land which together with the land held by such adult son aggregates to two hectares, subject to a maximum of six hectares of such additional land.

Contd.....

APPENDIX 4.3 (Contd..)

(C) One and one-half hectares of unirrigated land or two and a half hectares of crone-land or two and a half hectares of usar land shall count as one hectare of irrigated land.

ANNEXURE 4.4Operational Holdings in Uttar Pradesh: Area, Number And
Average Size By Regions

Economic Regions	Actual Area Cultivated (In lakh hectares)	Number of Operational Holdings (In Lakhs)	Percentage of Operational Holding	Average size of Holding (Hectare)
1	2	3	4	5
Western	62.69	45.77	30.3	1.37
Central	32.21	29.53	19.6	1.09
Eastern	59.13	67.82	41.9	0.88
Frontier Band	15.48	7.09	5.2	2.47

Source : Census of Holdings, 1970-71,
Uttar Pradesh.

ANNEXURE 4.5

Percentage Distribution of Number of House holds/holdings and area held by them in Uttar Pradesh in 1960-61 and 1970-71 and in India in 1960-61

Sl. No.	Size (Hect.)	India (1960-61)		U.P. (1960-61)		U.P. (1970-71)	
		Percentage of No. of House holds	Area	Percentage of No. of House holds	Area	Percentage of Holdings	Area
1	2	3	4	5	6	7	8
1.	Below 1	60.59	7.32	60.00	12.80	66.65	20.64
2.	1 but below 2	14.93	12.06	19.24	20.33	17.09	20.51
3.	2 but below 3	7.82	10.69	9.04	16.30	7.19	14.82
4.	3 but below 4	4.53	9.77	4.57	11.57	3.52	10.30
5.	4 but below 5	3.11	7.78	2.47	8.09	1.98	7.51
6.	5 but below 10	5.95	23.20	3.66	18.50	2.83	16.08
7.	10 and above	3.07	30.28	1.02	12.41	0.74	10.14
All Sizes		100.00	100.00	100.00	100.00	100.00	100.00

Note : - Cols. 3 to 6 refer to holdings by ownership and
Cols. 7 & 8 refer to holdings by possession.

Source : - Columns 3 to 6 National sample survey : sixteenth round 1960-61, columns 7 & 8 Agriculture census 1970-71.

ANNEXURE 4.6Percentage Distribution of Holdings And Their Area In Various Divisions*in U.P.*

Divisions	<u>Size of Holdings</u>				
	Upto 5 acres	5 to 10 acres	10 to 20 acres	20 to 25 acres	25 acres and more
Meerut :					
Number	80.45	13.70	5.23	0.35	0.27
Area	41.63	29.82	23.15	2.37	3.03
Agra :					
Number	87.21	8.17	4.19	0.23	0.20
Area	40.35	26.20	28.02	2.40	3.03
Ordanabad :					
Number	85.81	11.33	2.33	0.16	0.27
Area	50.12	28.53	15.81	1.96	3.58
Allahabad :					
Number	79.40	16.70	3.21	0.21	0.39
Area	43.79	28.61	20.30	2.59	4.71
Jhansi :					
Number	58.16	22.91	13.86	2.16	2.88
Area	24.11	25.09	28.15	7.45	15.17
Varanasi :					
Number	95.77	2.86	1.09	0.13	0.15
Area	47.71	24.48	17.72	3.47	6.62
Corakhpur :					
Number	92.14	5.98	1.56	0.15	0.17
Area	63.15	20.68	10.73	1.59	3.85
Funson :					
Number	86.58	9.10	3.30	0.36	0.66
Area	44.72	21.53	10.50	3.14	11.11
Mit tarakhand :					
Number	94.16	5.74	0.10	0.00	0.00
Area	86.04	10.53	1.85	0.00	1.58
Mucknow :					
Number	83.40	13.05	3.01	0.19	0.26
Area	52.94	28.44	12.16	2.33	4.13
Faizabad :					
Number	81.24	14.01	4.26	0.22	0.27
Area	53.18	24.22	16.80	1.95	3.85

Source : Estimates made on the basis of records available in the office of the Board of Revenue Uttar Pradesh.

ANNEXURE 51Calendar Of Land Revenue Settlements In Uttar PradeshCorrected Upto June 30, 1950

Name of District	Years of Completion of last settlement		Remarks
1	2	3	
Dehradun	(1)	1884	(i) In pargana Jamsar Pawar tehsil Chakrata.
	(2)	1940	(ii) Pargana Eastern and Western Dun, tehsil Dehra.
Saharanpur		1920	Revision of rent and revenue carried out in 1936-37.
Muzzaafarnagar		1921	Revision of rent and revenue carried out in 1939-40
Meerut		1939	
Fulandshahar		1919	Revision of rent and revenue carried out in 1939-40.
Aligarh		1941	
Mathura		1925	Revision of rent and revenue carried out in 1940-41.
Aggra		1929	Revision of rent and revenue carried out in 1940-41.
Mainpuri		1944	
Ftah		1944	
Fareilly		1941	
Pijnor		1938	
Budaun		1930	Revision of rent and revenue carried out in 1936-37.

Contd.....

ANNEXURE 51 (Contd.)

1	2	3
Norndabad	1943	Settlement of Tehsils Amroha and Nasannur postponed until (after the war.
Shahjahanpur	1941	
Pilibhit	1932	
Tarrukhabad	1943	Settlement operations of Tehsil Sadar postponed until after the war.
Etawah	1915	Revision of rent and revenue carried out in 1940-41.
Varanasi	1944	Settlement of Tehsils Thognipur and Ghataamur postponed until after the war.
Mathurapur	1917	Revision of rent and revenue out in carried 1936-37.
Allahabad	1915	Revision of rent and revenue carried out in 1941-42 except in tehsils Meja and Farahana.
Jhansi	1945	
Jalaun	1906	Has been settled under the fluctuating system of assessment.
Hamirpur	1909	Has been settled under the fluctuating system of assessment, except Pargana Bath which has been settled for 30 years under the ordinary rules.

Contd.....

APPENDIX 5.1(Contd.)

1	2	3
Panda	1911	Has been settled under the fluctuating system of assessments by which the assessments of different parganas are being revised periodically on the basis of existing cultivation, the excess or deficient cultivation being valued at rates fixed by the revenue being adjusted accordingly.
Mirzapur	1941	
Coralhpur	1919	Revision of rent and revenue carried out in 1939-42.
Deoria	1919	Nil.
Pastl	1919	Revision of rent and revenue carried out in 1941-42.
Azamgarh	1943	
Mainital	1925	Settlement postponed.
Almora	1942	The revised revenue in pargana Askot was imposed from Pharif 1350 fasli settlement of other parganas postponed.
Garhwal	1931	
Lucknow	1929	Revision of rent and revenue carried out in 1940-41.
Unnao	1930	Revision of rent and revenue carried out in 1939-40.

Contd.....

APPENDIX 51 (Contd..)

1	2	3
Pae Pareli	1929	Revision of rent and revenue carried out in 1939-40
Citapur	1938	
Pardoi	1931	Revision of rent and revenue carried out in 1936-37.
Phori	1940	
Paizabad	1941	
Conda	1942	
Pahraich	1938	
Sultanpur	1939	
Pratapgarh	1929	Revision of rent and revenue carried out in 1940-41.
Parabanki	1930	Revision of rent and revenue carried out in 1936-37.

Statement Showing The Incidence of Land Revenue on Sirdars, Thumidhars and Asamis, in P.P. (Plain)

Sl. No.	Years	Sirdar			Thumidhars			Asamis		
		Total Area (Lakh Acre)	Total Land Revenue (Lakh Rs.)	Per Acre Land Revenue (Rs. 0.00)	Total Area (Lakh Acres)	Total Land Revenue (Lakh Rs.)	Per Acre Land Revenue (Rs. 0.00)	Total Area (Lakh Acre)	Total Land Revenue (Lakh Rs.)	Per Acre Land Revenue (Rs. 0.00)
1.	1955-56	302.66	1702.95	5.63	138.56	347.73	2.51	2.90	5.98	2.06
2.	1958-59	298.96	1701.76	5.69	151.61	372.41	2.46	3.70	13.60	3.68
3.	1961-62	296.24	1709.56	5.77	158.69	402.99	2.54	3.67	12.68	3.46
4.	1963-64	291.83	1688.69	5.79	163.25	416.38	2.55	3.95	13.50	3.42
5.	1965-66	284.77	1655.81	5.81	169.40	426.77	2.52	4.15	14.11	3.40
6.	1966-67	281.67	1642.35	5.83	172.08	414.66	2.61	4.31	15.43	3.58
7.	1967-68	277.99	1624.43	5.84	175.36	454.57	2.59	4.43	16.08	3.63
8.	1968-69	274.83	1597.49	5.81	181.89	465.89	2.56	4.63	16.42	3.55
9.	1969-70	272.88	1582.64	5.80	186.07	481.34	2.59	4.31	15.51	3.60
10.	1970-71	271.05	1575.42	5.81	186.96	489.46	2.62	4.29	15.17	3.54

Source : For 1955-56 to 1966-67 Uttar Pradesh, Taxation Enquiry Committee Report (1968-69).

For Rest of the years Board of Revenue.

ANNEXURE 5-3Revenue from Agricultural Income Tax, I.T.T., and Trihat-
Jot-Kar in U.P.

Year of assessment	Total no. of cases	Total net amount of tax assessed (in rupees)	Total net amount of collection (in rupees)	Amount remaining outstanding for recovery on 36.6.73 (in rupees)
1	2	3	4	5
<u>Agricultural Income Tax, 1948</u>				
1948-49	7,556	91,59,294	91,59,294	--
1949-50	8,405	95,06,021	94,99,511	6,510
1950-51	7,962	90,56,354	90,46,301	10,053
1951-52	8,427	1,02,68,842	1,01,87,773	81,069
1952-53	9,070	1,09,57,565	1,05,79,053	2,78,512
1953-54	15,582	67,36,403	66,92,850	43,553
1954-55	9,496	62,37,309	60,38,998	1,98,311
1955-56	9,268	59,85,776	58,37,853	1,47,923
1956-57	12,077	1,31,91,323	1,31,12,485	78,838
Total	87,843	8,09,98,887	8,01,54,118	8,14,769
<u>Large Land Holding Tax, 1957</u>				
1958-59	22,075	83,77,187	80,48,717	3,28,470
1959-60	21,294	82,17,029	78,76,573	3,40,456
1960-61	20,249	73,94,960	70,67,681	3,27,279
1961-62	21,749	74,65,898	71,63,810	3,02,078
Total	85,367	3,14,55,064	3,01,56,781	12,98,283

Contd.....

ANNEXURE 5 3 (Contd...)

1	2	3	4	5
<u>Vrihat-Jot-Far Adhiniyam, 1963</u>				
1963-64	11.022	31,06,977	26,52,377	4,54,600
1964-65	10,029	31,39,592	26,48,319	4,91,273
1965-66	10,842	28,14,991	23,73,928	4,41,072
1966-67	10,063	24,92,297	20,49,228	4,43,069
1967-68	9,562	22,71,994	17,96,246	4,75,748
1968-69	7,656	21,16,510	15,50,202	5,66,308
1969-70	9,049	19,64,760	13,13,438	6,51,322
1970-71	7,663	17,09,169	10,93,037	6,16,132
1971-72	6,902	14,39,056	7,31,862	7,07,194
1972-73	5,108	3,08,635	3,57,049	4,51,586
1973-74	3,584	3,76,255	64,894	2,11,361
Total	91,480	2,22,40,236	1,66,30,571	56,09,665
A.I.T. (1948-49 to 1956-57)	87,843	8,09,98,887	8,01,54,118	8,14,769
L.I.H.T. (1958-59 to 1961-62)	85,367	3,14,55,064	3,01,56,781	12,98,283
V.J.K. (1963-64 to 1973-74)	91,480	2,22,40,236	1,66,30,571	56,09,665
Total	2,64,690	13,46,94,187	12,69,41,470	77,52,717
1948-49 to 1973-74)				

ANNEXURE 6.1Direct Agricultural Taxation As Percentage of Agricultural
Income - 1960-61 to 1972-73

in U P

Sl. No.	Years	Agricultural Income (Rs. Crores)	Land Revenue Including Agriculture Income Tax (Rs. crores)	Col. 4 as percentage of col. 3
1	2	3	4	5
1.	1960-61	1071.82	23.04	2.15
2.	1961-62	1119.00	21.70	1.94
3.	1962-63	1121.39	25.37	2.26
4.	1963-64	1279.28	25.22	1.97
5.	1964-65	1911.08	20.44	1.07
6.	1965-66	1312.39	24.33	1.84
7.	1966-67	2364.08	20.68	0.87
8.	1967-68	2770.25	25.49	0.92
9.	1968-69	2439.90	24.42	1.00
10.	1969-70	2747.26*	21.50	0.78
11.	1970-71	2681.45*	22.14	0.83
12.	1971-72	3198.71*	6.07	0.19
13.	1972-73	3562.72*	10.01	0.28

Source : Col. 3 - Economics & Statistics Division.
Col. 4 - State Budgets.

*Provisional

Note : Income of Animal Husbandry Sector is included in Col. 3.

ANNEXURE C-2District wise per Acre Incidence of Land Revenue-1969-70

in U.P.

District	Land Revenue (Current Demand) (Rs.)	Net Area Sown during 1969-70 (Hect.)	Per Acre Land Revenue (Rs. 0.00)
1	2	3	4
Dehradun	4,34,131	54,466	3.23
Saharanpur	44,12,611	3,69,808	4.83
Muzaffarnagar	40,46,008	3,25,435	5.03
Meerut	59,43,054	4,62,780	5.20
Fuland Shahr	52,57,835	3,75,724	5.67
Division Total	200,93,669	15,87,813	5.12
Aligarh	58,29,944	3,90,592	6.04
Mathura	35,15,378	3,09,981	4.59
Agra	42,95,162	3,57,142	4.87
Mainpuri	37,55,450	2,83,739	5.36
Fateh	34,79,622	3,10,966	4.53
Divisional Total	2,08,75,556	16,52,420	5.11
Parilly	42,49,524	3,28,452	5.24
Pijnor	46,72,055	3,27,684	5.77
Padaun	45,53,880	4,10,261	4.49
Koradabad	66,80,326	4,74,711	5.69
Shahjahanpur	34,47,951	3,19,227	4.37
Pilibhit	23,57,043	2,05,435	4.64
Pampur	39,41,524	1,89,101	8.43
Division Total	2,99,02,306	22,51,871	5.37

Contd.....

ANNEXURE 6 2(Contd..)

1	2	3	4
Tarrulhabad	34,12,505	2,90,832	4.75
Etawah	37,88,005	2,93,177	5.23
Etahpur	35,27,139	2,93,091	4.87
Kanpur	55,24,818	4,33,860	5.15
Allahabad	60,91,501	4,76,801	5.17
Division Total	2,23,44,768	17,87,751	5.06
Jhansi	25,08,102	4,81,056	2.11
Jalaun	29,06,1134	3,63,932	3.23
Hamirpur	34,17,596	5,08,883	2.72
Panda	30,66,124	4,93,828	2.51
Division Total	1,18,98,256	18,47,699	2.61
Varanasi	46,52,857	3,37,570	5.58
Mirzapur	28,75,523	3,71,159	3.14
Jaunpur	38,20,137	2,96,762	5.21
Ghazipur	32,13,067	2,69,384	4.83
Fallia	28,30,811	2,39,574	4.78
Division Total	1,73,92,395	15,14,449	4.65
Corakipur	39,74,791	4,75,227	3.38
Fasti	62,40,652	5,68,935	4.44
Azamgarh	54,81,705	4,42,116	5.01
Deoria	41,87,780	4,42,620	3.83
Division Total	1,98,84,928	19,29,198	4.17

Contd.....

ANNEXURE 6-2 (Contd.)

1	2	3	4
Uninitialed	12,10,876	2,08,777	2.35
Alrore	1,51,670	1,51,400	1.21
Wathorapath	1,32,307	66,105	0.85
Division Total	12,01,853	1,26,282	1.71
Garhwal	1,91,190	98,392	0.80
Tehri Garhwal	3,78,436	79,213	1.93
Chamoli	1,07,608	51,301	0.85
Uttar Kashi	1,30,750	25,260	2.10
Division Total	8,10,984	2,54,166	1.29
Lucknow	31,89,840	1,51,420	8.36
Unnao	17,50,592	2,92,056	6.58
Etawah	73,81,322	1,30,674	6.94
Meerut	46,56,447	2,83,343	5.65
Bareilly	61,87,402	3,78,379	6.94
Rampur	49,49,935	4,33,418	4.62
Division Total	3,14,15,538	19,72,290	6.45
Meerut	46,59,078	2,99,625	6.29
Meerut	60,06,240	5,19,899	5.37
Fahraich	61,55,667	4,49,390	5.54
Sultanpur	46,03,370	3,10,744	5.99
Pratapgarh	39,56,227	2,48,447	6.44
Parabanki	68,43,415	3,02,160	9.17
Division Total	3,31,23,997	21,30,265	6.29
State Total	20,95,47,250	1,73,57,204	4.88

Source : Col. 2 - Board of Revenue U.P., Col. 3 Bulletin of Agricultural Statistics 1970-71 for Plains Districts and Agriculture Directorate for Hill Districts.

ANNEXURE 6.3

Tax Revenues As Percentage Of State Income 1960-61 To 1972-73

in %

Sl. No.	State	1960-61	1965-66	1968-69	1969-70	1970-71	1971-72	1972-73
1	2	3	4	5	6	7	8	9
1.	Uttar Pradesh	3.2	3.2	3.3	3.2	3.4	3.0	2.7
2.	Andhra Pradesh	4.2	4.6	5.3	5.0	5.8	-	-
3.	Assam	3.2	3.8	2.8	3.4	-	-	-
4.	Bihar	3.3	3.4	3.5	-	-	-	-
5.	Gujarat	2.8	4.4	5.3	5.3	5.2	-	-
6.	Jammu & Kashmir	-	-	-	-	-	-	-
7.	Karnatak	3.7	4.6	5.8	6.2	6.5	7.0	7.5
8.	Kerala	4.5	4.9	5.6	5.4	5.5	6.0	-
9.	Madhya Pradesh	2.8	3.9	3.7	3.7	3.8	3.9	4.0
10.	Maharashtra	4.0	5.2	5.6	5.9	6.6	6.6	6.9
11.	Orissa	2.3	3.1	2.8	2.9	-	-	-
12.	Punjab & Haryana	3.9	5.1	5.5	5.3	5.6	5.7	-
13.	Rajasthan	2.9	4.2	4.9	4.4	4.1	4.5	-
14.	Tamil Nadu	3.6	5.6	6.1	6.3	6.3	7.2	-
15.	West Bengal	4.4	5.8	5.5	5.7	5.5	5.9	-
	All States*	3.6	4.4	4.7	4.8	5.2	5.3	4.8

* Excludes States for which income figures are not available.

ANNEXURE 6.4Capital Formation In Rural Areas Of U. P. - 1969-70

Items	Value (In Rs. lakhs)
1	2
Land	200.19 (1.29)
Buildings	6344.81 (40.94)
Wells	237.28 (1.53)
Tube-wells	1598.71 (10.32)
Persian Wheels	142.16 (0.92)
Other Means of Irrigation	146.96 (2.88)
Animal Husbandry & Poultry	3408.56 (22.00)
Plant & Machinery	1794.43 (11.58)
Vehicles & Carriages	805.76 (5.20)
Tools & Equipment	466.19 (3.01)
Furniture and Fixtures	51.37 (0.33)
Total	15,496.30 (100.00)

Note : (Figures in bracket indicate their percentage distribution).

Source : Capital formation in Rural sector Uttar Pradesh 1969-70 issued by State Planning Institute Economics & Statistics Division, U.P.

ANNEXURE 7.1

Incidence of Land Revenue According to Holding Sizes in Uttar Pradesh - 1970-71

Size of Holding (in Acres)	No. of holdings	Net area involved therein	Total land Revenue Involved therein	Incidence of Land Revenue (per acre)	Total income from VIF
0 - 0.5	33,17,642	9,40,396	53,86,442	5.72	
0.5-1.0	31,56,256	21,49,136	1,14,44,306	5.32	
1.0-2.0	29,91,150	41,59,506	2,10,60,960	5.06	
2.0-3.125	21,07,506	52,49,616	2,55,70,936	4.87	
3.125-5.0	17,10,958	66,35,278	3,08,07,026	4.84	
5.0 - 6.25	9,98,508	52,30,372	2,40,80,774	4.60	
6.25 - 10	8,69,406	66,51,472	2,74,88,550	4.13	
10 - 20	6,86,460	88,69,706	3,28,56,896	3.75	
20 - 30	1,03,088	24,33,892	73,48,964	3.43	
30 - 40	27,168	0,85,606	24,74,760	2.82	
40 - 50	11,124	4,71,640	11,17,272	2.40	11,62,363
50 and above	4,722	3,46,528	6,24,824	1.80	

Source : Board of Revenue, Uttar Pradesh.

ANNEXURE 7.2

The Uttar Pradesh Land Development Tax and Land Revenue
(Amendment) Ordinance, 1974. (Uttar Pradesh Gazette,
Extraordinary, October 29, 1974)

To make the Land taxes in Uttar Pradesh progressive a surcharge in the form of Land Development Tax was introduced in Uttar Pradesh with effect from July 1, 1971. The collections of the tax during 1973-74 have been Rs. 13.59 crores. This tax partially replaced land revenue for holdings between 3.125 and 6.25 acres, but also served to remedy the inequitable distribution of land revenue burden among various size groups of holdings.

The new Ordinance, called the Uttar Pradesh Land Development Tax and Land Revenue (Amendment) Ordinance, 1974 shall be deemed to have come into force on July 1, 1974. The land development tax will now be related to annual value of land which means land revenue in the case of Sirdar and double the land revenue in the case of Phumidhar.

The Land Development Tax shall be payable at the rates specified below :

ANNEXURE 7.2 (Contd.)

Size of Holding in Acres	Sirdars	Phumidhars
1. On holdings of 3.125 acres	No Tax	No Tax
2. On holdings greater than 3.125 acres but upto 6.25 acres	50% of land revenue	100% of land revenue
3. On holdings greater than 6.25 acres but less than 12.5 acres	150% of land revenue	300% of land revenue
4. On holdings greater than 12.5 acres	250% of land revenue	500% of land revenue.

N.B. Annual Value (i) in the case of phumidhar refers to an amount equal to double of the land revenue payable or deemed to be payable by such phumidhar;

(ii) in the case of a sirdar or an intermediary, an amount equal to the land revenue payable or deemed to be payable by such sirdar or intermediary.

ANNEXURE 7.3Direct Taxes on Agriculture as Percentage of State Agricultural
Income and State Tax Revenues (1967-68 to 1969-70)

In INDIA.

State	Net Domestic Product (Agr.) at current prices (Rs. in crores).	Total State Tax Revenue (Rs. crores)	Total Direct Agricultural tax (Rs. crores)	Col. 4 expressed as percentage of col. 2	Col. 4 expressed as percentage of col. 3
1	2	3	4	5	6
Andhra Pradesh	3576	289.93	46.13	1.29	15.91
Assam	1503	75.38	18.52	1.23	24.57
Bihar	3118	215.68	29.68	0.95	13.76
Gujarat	2242	239.79	22.88	1.02	9.54
Haryana	1413	99.23	5.08	0.36	5.12
Himachal Pradesh	308	-	-	-	-
Jammu & Kashmir	362	17.48	1.88	0.52	10.76
Kerala	1753	171.07	14.92	0.85	8.72
Madhya Pradesh	2927	213.32	23.03	0.79	10.80
Maharashtra	3211	572.19	36.99	1.15	6.46
Mysore	2524	226.95	24.69	0.98	10.68
Nagaland	25	0.41	0.02	0.08	4.88
Orissa	2098	77.74	5.10	0.24	6.56
Punjab	2233	192.24	5.44	0.24	2.83
Rajasthan	1914	148.81	25.56	1.34	17.18
Tamil Nadu	2467	346.52	30.90	1.25	8.92

Contd.....

ANNEXURE 7.3 (Contd.)

1	2	3	4	5	6
Uttar Pradesh	7574	397.82	88.94	1.17	22.36
West Bengal	3713	341.57	22.26	0.60	6.52
Total	42,951	3626.03	402.20	0.94	11.09

Note : (1) Total State Tax-Revenue does not include the share of the States in Central taxes.

(11) Direct Agricultural tax includes Agricultural Income tax, Land Revenue, Surcharges and cess on Sugarcane, Purchase tax on Sugarcane, Surcharges on Cash Crops and Tobacco duties.

Source : Report of the Committee on Taxation of Agricultural Wealth and Income, Govt. of India.

APPENDIX B.1.A'

Tehsilwise Land Utilization In Allehabad District In 1970-71

(In hectares)

	Sirathu Manjhan- tehsil	Chail tehsil	Soreon Phulpur Handla tehsil	Karchhna tehsil	Meja tehsil	Total			
Area	60,319	70,518	80,056	68,220	74,969	77,203	1,34,945	1,71,490	7,37,720
Utilization of area (Columns 4+6+7)									
Gross cropped area	42,762	52,622	61,496	51,048	52,727	59,861	1,02,767	1,30,351	5,53,634
Net area sown	48,951	60,799	67,852	73,567	62,360	72,009	1,15,360	1,22,018	6,22,916
Multiple cropped area	39,840	48,979	55,339	46,910	40,933	54,438	90,206	1,02,261	4,78,906
Current fallow	9,111	11,820	12,513	26,657	21,427	17,571	25,154	19,757	1,44,010
Area under forests	2,594	3,581	6,157	4,112	11,794	5,415	9,652	14,201	57,506
Area not available for cultivation	328	62	-	26	-	8	2,909	13,889	17,222
Other uncultivated area	10,743	11,390	14,552	11,344	18,161	11,020	18,075	17,976	1,13,261
Total area	6,814	6,506	4,008	5,828	4,081	6,322	14,103	23,163	70,825
Total net area irrigated	60,319	70,518	80,056	68,220	74,969	77,203	1,34,945	1,71,490	7,37,720
Total net area irrigated	11,735	13,924	11,423	24,474	20,325	23,162	19,211	15,728	1,35,982

ANNEXURE 8.1'B'

Tehsil-wise Land Utilization

in Alakhnagar District

Sirathu	Manjha- nagar	Chail	Sorsan	Phulpur	Handia	Yarchhana Meja		
Percentage of the net area sown in the tehsil to the net area sown in the district	8.32	10.22	11.56	9.80	8.54	11.37	18.84	21.35
Percentage of the net area sown in the tehsil to the total area of the tehsil	66.05	69.45	69.13	68.76	54.60	70.51	66.85	59.63
percentage of the multiple cropped area in the tehsil to the multiple cropped area of the district	6.32	8.21	8.69	18.51	14.88	12.20	17.47	13.72
Percentage of the area under forest in the tehsil to the forest area of the district	1.90	0.36	-	0.15	-	0.05	16.89	80.65
Percentage of the area under forest in the tehsil to the total area of the tehsil	0.54	0.09	-	0.04	-	0.01	2.16	8.10
Percentage of multiple cropped area to net area sown	22.87	24.13	22.61	56.82	52.34	32.28	27.88	10.32
Percentage of the area irrigated to the net area sown	29.45	28.43	20.64	52.17	49.65	44.55	21.20	15.38
Percentage of multiple cropped area to the irrigated area	77.64	84.89	109.54	108.93	105.41	75.86	130.93	125.61
Percentage of the net area irrigated to net irrigated area of the district	8.38	9.95	8.16	17.48	14.52	16.55	13.72	11.24

ANNEXURE 8-2

Number of Operational Holdings and Area in Different Holding Sizes - 1970-71 in U.P.

Size (Hect.)	Total Holdings			Single Holdings			Joint Holdings			Single and Joint Holdings as are to total			Holdings expressed		
	Number	Area (Hect.)	Number	Area (Hect.)	Number	Area (Hect.)	Number	Area (Hect.)	Number	Single	Joint	Area	Single	Joint	Area
Less than 0.5	7116591	1521670	4557361	959092	2559230	562573	64.0	36.0	63.0	37.0			63.0	37.0	
0.5 - 1.0	2986638	2143859	1827763	1309703	1158875	834156	61.2	38.8	61.1	38.9			61.1	38.9	
1.0 - 2.0	255.431	3642575	1532190	2146771	1059241	1495804	59.1	40.9	58.9	41.1			58.9	41.1	
2.0 - 3.0	1089301	2632107	612373	1476699	476928	1155408	56.2	43.8	56.1	43.9			56.1	43.9	
3.0 - 4.0	533765	1829241	283696	970622	250069	858619	53.1	46.9	53.1	46.9			53.1	46.9	
4.0 - 5.0	300480	1333858	155291	688569	145189	645289	51.7	48.3	51.6	48.4			51.6	48.4	
5.0 - 10.0	428585	2856136	202603	1337476	225982	1518680	47.3	52.7	46.8	53.2			46.8	53.2	
10.0-20.0	94727	1230570	37682	480703	57045	750267	39.8	60.2	39.1	60.9			39.1	60.9	
20.0-30.0	11752	278311	3621	85068	8131	193243	30.8	69.2	30.6	69.4			30.6	69.4	
30.0-40.0	3198	108131	915	30860	2283	77271	28.6	71.4	28.5	71.5			28.5	71.5	
40.0-50.0	1059	46710	271	11923	787	34787	25.6	74.4	25.5	74.5			25.5	74.5	
50.0 & above	1406	138150	464	54076	942	84071	33.0	67.0	39.1	60.9			39.1	60.9	
Total	15158932	17761738	9214230	9551562	5944702	8218176	60.8	39.2	53.8	46.2					

Source : Tables of Agriculture Census 1970-71.

ANNEXURE B-3Crop-wise Total Production And Average Yield Per Hectare*Allahabad District*

Name of the Crop	Production (Tonnes)		Average Yield (CtL. per Hect.)		State Avg. Yield (CtL. per Hect.)	
	1967-68	1968-69	1967-68	1968-69	1967-68	1968-69
Early paddy	58994	19724	6.59	2.03	-	-
Late paddy	33510	19245	9001	6.02	-	-
Early and Late paddy	92503	38969	7.30	3.02	7.38	6.31
Waid paddy	75	22	-	-	-	-
Total paddy	92579	38991	-	-	-	-
Jowar	21523	18644	5.95	4.53	5.21	5.50
Bajra	35597	22665	6.31	4.16	4.51	5.42
Maize	1075	1232	8.33	9.27	7.78	8.94
Total Kharif foodgrains	164532	91515	-	-	-	-
Wheat	83324	57508	9.75	8.78	11.82	12.01
Parley	114931	51138	11.31	6.70	10.98	7.52
Gram	73094	39026	8.26	5.18	7.29	7.05
Arhar	54030	32252	17.76	11.11	9.55	11.11
Total Rabi foodgrains	349732	208234	-	-	-	-
Total of Kharif and Rabi food-grain	514264	299749	-	-	-	-
Groundnut	3	5	4.70	7.59	7.22	7.06
Total Oilseeds	3038	1431	-	-	-	-
Sugarcane	138507	135262	347.10	318.41	380.23	420.19
Potatoes (Rabi)	80054	78157	92.18	35.59	92.21	95.69
Potatoes (Waid)	29	152	-	-	-	-
Total Potatoes	80083	78319	-	-	-	-

Source : Bank of Paroda, Land Bank Survey Report on Allahabad District.

Annexure 8.4Occupational Pattern In Allahabad District

	<u>Number of persons engaged</u>			<u>Percentage of occupation to the total working population</u>
	<u>Males</u>	<u>Females</u>	<u>Total</u>	
Cultivators	3,92,076	2,32,804	6,24,880	57.2
Agricultural labourers	95,999	96,078	1,92,077	17.5
Mining, quarrying, fishing & allied activities	3,817	920	4,730	0.4
Household industries	47,526	17,252	64,778	5.9
Manufacturing other than household Inds.	29,332	1,636	30,968	2.8
Construction	6,232	289	6,521	0.6
Trade & Commerce	38,889	4,403	43,292	4.0
Transport, storage & communication	23,118	200	23,318	2.1
Other services	85,023	16,975	1,01,998	9.5
Total :	7,22,012	3,70,557	10,92,569	100.0

Source : Census, 1961.

ANNEXURE 9.1Agricultural Development Index
(for Allahabad District)

Name of the Blocks	(Area in Hectares)					Agricultural Development	
	Total H.Y.V. Area	Gross cropped Area	High yield-ing varieties		Irrigated Area	Composite Index	
			Perce-Index tage	Perce-Index ntage			
1	2	3	4	5	6	7	8
Dhanupur	2816	17123	16	64	38	79	75
Pratappur	6282	20336	31	124	51	106	112
Handia	3849	14114	27	108	42	88	96
Saidabad	5751	20635	28	112	40	83	96
Bahadurpur	4772	22045	22	88	43	90	86
Bahariya	4540	18862	24	26	65	135	124
Phulpur	4401	21455	21	84	45	94	91
Holagarh	3583	21413	17	68	62	129	116
Kaurihar	5672	19763	29	116	36	79	95
Mau-Aima	5863	16951	34	136	57	119	125
Soraon	5393	19440	35	140	57	119	127
Sub-Total	52922	208137	25	100	48	100	100
Chail	3650	19038	19	112	18	69	91
Newada	4937	30581	16	94	18	108	103
Muratganj	2418	18158	13	76	14	54	65
Kanaili	3299	19009	17	100	25	26	56
Manjhanpur	3660	18665	20	118	38	146	136

Contd....

ANNEXURE 1 (Contd.)

1	2	3	4	5	6	7	8
Sarsawa	4950	23125	21	124	24	92	107
Kara	3384	23270	14	82	27	104	96
Sirathu	4498	25680	18	106	32	123	117
Sub-Total Doab	30796	177526	17	100	26	100	100
Chaka	3379	21195	16	133	41	228	201
Jasara	5782	40330	14	117	24	133	127
Karchhana	4233	22724	19	158	31	172	167
Shankargarh	2383	31106	8	57	6	33	52
Kornon	540	40571	1	8	9	50	45
Manda	4303	25897	17	142	20	111	125
Meja	3456	32212	11	92	16	89	90
Uruwa	3577	25914	14	117	26	144	135
Sub-Total Jamunapar	27673	239949	12	100	18	100	100
Total District	111391	625612	18				

ANNEXURE 9.2

SIZE OF HOLDINGS IN ALLAHABAD DISTRICT

S I E H S I I									
Size of Holdings		Chall	Firathu	Wanghanour		Maulmur			
District Holdings Statistics		No. of Holdings	Area	No. of Holdings	Area	No. of Holdings	Area	No. of Holdings	Area
1	2	3	4	5	6	7	8	9	10
Upto one Hectare		32132	13110	26519	10357	34051	13260	61635	20471
No.	Area								
335679	120661								
One to three Hectare		13038	22091	9982	16778	14156	15215	12132	10010
No.	Area								
103220	173129								
Three to five Hectare		2786	10399	1927	7328	2342	8023	1657	6302
No.	Area								
21389	81223								
Five to above Hectare		1614	13524	1123	5225	1443	12015	721	5376
No.	Area								
16975	168827								
Total		45570	50124	30451	13688	19332	53313	75145	51168
No.	Area								
477263	943840								

Contd.....

ANNEXURE 9.2 (Contd.)

Size of Holdings		T E H S I L							
		Soran		Handia		Varchhna		Vefa	
		No. of Holdings	Area	No. of Holdings	Area	No. of Holdings	Area	No. of Holdings	Area
1		10	11	12	13	14	15	16	17
Upto one Hectare		39902	14561	64555	20104	38817	15397	35069	130441
No.	Area								
335679	120661								
One to three Hectare		12120	20007	12821	21101	16321	29209	15387	26829
No.	Area								
103220	173129								
Three to five Hectare		1977	7413	2048	7718	1169	15567	1124	17268
No.	Area								
21389	91223								
Five to above Hectare		1059	8509	919	7220	1155	14202	5511	68256
No.	Area								
16975	168827								
Total		55068	50575	80373	56143	6347	104235	60050	125564
No.	Area								
477263	543840								

Source : Agricultural Census (1970-71)

ANNEXURE 9.3

Per Capita Monthly Consumer Expenditure in Rural and Urban Areas in Uttar Pradesh

Year	Rural Rs.	Urban Rs.	Percentage of Col. (2) to (3)
1	2	3	4
1956-57	16.16	27.02	59.8
1970-71	34.98	43.84	79.6

Source : (1) White Paper, Uttar Pradesh Vidhan Sabha, Soochana Vibhag,
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(11) For details refer to Uttar Pradesh's, Rural and Urban
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